

NEVADA DEPARTMENT OF WILDLIFE



2004-2005 BIG GAME STATUS

STATE OF NEVADA
Kenny C. Guinn, Governor

DEPARTMENT OF WILDLIFE
Terry R. Crawforth, Director

BUREAU OF GAME
Craig A. Mortimore, Acting Chief

BOARD OF WILDLIFE COMMISSIONERS

Tommy A. Ford, Chairman Las Vegas
Chris MacKenzie, Vice-Chairman Carson City
Clint Bentley Las Vegas
Bill Bradley Reno
Jim Jeffress Lovelock
Ron Lurie Las Vegas
David McNinch Reno
Eric J. Olsen Fallon
Mike Riordan Jiggs

Cover photograph courtesy of: Don Capelli

The Nevada Department of Wildlife receives funds from Federal Aid in Fish and Wildlife Restoration Acts. Federal and State law state that there shall be no difference in the treatment of individuals because of race, color, creed, religion, national origin, sex or disability. Anyone receiving alleged discriminatory treatment in any Department program, activity or facility should report it to either:

Director
Nevada Department of Wildlife
1100 Valley Road
Reno, Nevada 89512

U.S. Fish & Wildlife Service
Department of the Interior
18th & C Streets
Washington, D.C. 20240

NEVADA DEPARTMENT OF WILDLIFE

2004-2005 BIG GAME STATUS



This Program Receives Federal Aid in Wildlife Restoration
Grant W-48-R-35; Sub-Grant I, Survey & Inventory
Project #1; Jobs 1, 2, 3, 4, 5, and 6

Compiled and Edited by:

Mike Cox, Big Game Staff Biologist

Craig A. Mortimore, Acting Game Bureau Chief
Mike Dobel, Regional Supervising Biologist
Larry Gilbertson, Regional Supervising Biologist
Steve Kimble, Regional Supervising Biologist
Russell Woolstenhulme, Staff Biologist
Dawn Carter, Administrative Assistant
Gayle Gregg, Administrative Assistant

TABLE OF CONTENTS

BIG GAME STATUS STATEWIDE SUMMARY	SS1
WEATHER AND CLIMATE EFFECTS.....	1
MULE DEER.....	5
Units 011 - 015: Northern Washoe and Western Humboldt Counties	5
Units 021, 022: Southern Washoe County	6
Units 031, 032, 034, 035: Western Humboldt County	6
Unit 033, Sheldon National Wildlife Refuge: Washoe and Humboldt Counties	7
Units 041, 042: Western Pershing and Southern Humboldt Counties	8
Units 043 - 046: Eastern Pershing and Southern Humboldt Counties	9
Unit 051, Santa Rosa Mountains: Eastern Humboldt County	9
Units 061 - 062, 064, 066 - 068, Independence and Tuscarora Ranges: Western Elko County ...	10
Unit 065, Sulphur Spring Range: Southwestern Elko County	12
Units 071 - 079: Northeastern Elko County	12
Unit 081, Goose Creek Area: Northeastern Elko County	13
Units 101 - 108: Southern Elko and Northwestern White Pine Counties	13
Units 111 - 113: Eastern White Pine County	14
Units 114 – 115, Snake Range: Southeastern White Pine County	15
Unit 121, North Egan, Cherry Creek Ranges: White Pine and Elko Counties	16
Units 131 - 134: Southern White Pine, Eastern Nye and Western Lincoln Counties	17
Units 141 - 145: Eureka and Eastern White Pine Counties	18
Units 151, 152, 154, 155: Lander and Western Eureka Counties	19
Units 161 - 164: North-Central Nye and Southern Lander and Eureka Counties	20
Units 171 - 173: Northwestern Nye and Southern Lander Counties	20
Units 181 - 184: Churchill, Southern Pershing and Western Lander Counties	21
Unit 192, Carson River Interstate Mule Deer Herd: Douglas County	22
Unit 194, 196, Carson Range and Peavine Mountain Interstate Herd: Washoe and Carson City Counties	22
Unit 195, Virginia Range: Storey County	23
Units 201, 202, 204 - 206, Walker/Mono Interstate Deer Herd: Douglas, Lyon and Mineral Counties	23
Unit 203, Mason and Smith Valleys: Lyon County	24
Units 211, 212: Esmeralda County	24
Units 221 - 223: Northern Lincoln and Southern White Pine Counties	24
Unit 231, Wilson Creek Range: Northeastern Lincoln County	25
Units 241 – 245, Clover, Delamar, and Meadow Valley Mountain Ranges: Lincoln County	26
Units 251 - 253: South Central Nye County	27
Units 261 - 268: Clark and Southern Nye Counties	27
Units 271, 272: Southern Lincoln and Northeastern Clark Counties	28
Unit 291, Pinenut Range: Carson City, Douglas and Lyon Counties	28
PRONGHORN ANTELOPE.....	29
Units 011 - 015, 021, 022: Western Humboldt, and Washoe Counties	29
Units 031, 032, 034, 035, 051: Humboldt County	30

Unit 033, Sheldon National Wildlife Refuge: Washoe and Humboldt Counties	31
Units 041, 042: Western Pershing and Southern Humboldt Counties	32
Units 061, 062, 064, 071, 073: North Central Elko County	33
Unit 065: Southwestern Elko County.....	35
Unit 066, Owyhee Desert: Northwestern Elko County	35
Units 067, 068: Western Elko and Northern Lander and Eureka Counties.....	36
Units 072, 074, 075: Northeastern Elko County	37
Units 076, 077, 079, 081: Northeastern Elko County.....	38
Units 078, 105 – 107, 121: Southeastern Elko and Central White Pine Counties	38
Units 101 – 104, 108: South Central Elko and Western White Pine Counties.....	39
Units 111 - 114: Eastern White Pine County.....	40
Units 115, 231, 242: Eastern Lincoln and Southern White Pine Counties.....	41
Units 131, 145, 163, 164 and a portion of 221*: Southern Eureka, Northeastern Nye, and Southwestern White Pine Counties.....	41
Units 132 - 134, 245: Eastern Nye and Western Lincoln Counties.....	42
Units 141, 143, 151- 155: Eastern Lander and Eureka Counties	43
Units 161, 162: Northern Nye, Southeastern Lander, and Southwestern Eureka Counties	44
Units 181-184: Churchill, Southern Pershing, Western Lander and Northern Mineral Counties ...	45
Units 202, 204, Lyon and Mineral Counties	46
Units 205, 206, Eastern Mineral County.....	46
Units 203-291: Lyon, Douglas Counties.....	46
Units 221 – 223, 241: Lincoln and Southern White Pine Counties	47
Unit 251: Central Nye County.....	48
ROCKY MOUNTAIN ELK.....	49
Units 061, 071, Bruneau River and Merritt Mountain Area: Northern Elko County.....	49
Units 062, 064, 066 - 068, Independence and Tuscarora Ranges: Western Elko and Northern Eureka and Lander Counties	50
Units 072, 074 Jarbidge Mountains: Northern Elko County	51
Units 075, Snake Mountains: Elko County.....	51
Units 076, 077, 081, Thousand Springs, Goose Creek, and Pequop Mountains Area: Northern Elko County	52
Unit 079 Pilot Range, Eastern Elko County.....	53
Unit 101 – 103, East Humboldt and Ruby Mountains: Elko County.....	53
Units 078, 104, 105 - 107, Spruce Mountain: Elko County	54
Units 104, 108, 121, Cherry Creek, Egan, Butte, and Medicine Ranges: Northern White Pine County	54
Units 111 - 115, 221, 222, Schell, Egan, and Snake Ranges: Eastern White Pine, and Northern Lincoln Counties.....	55
Units 131,132, White Pine, Grant and Quinn Canyon Ranges: Southern White Pine and Eastern Nye Counties	57
Units 161 - 164: North-Central Nye and Southern Lander and Eureka Counties	58
Unit 231, Wilson Creek Range: Lincoln County	59
Unit 241-242, Delamar and Clover Mountains: Lincoln County	60
Unit 262, Spring Mountains: Clark and Southern Nye Counties	60
DESERT BIGHORN SHEEP	62
Units 044, 182, East and Stillwater Ranges: Pershing and Churchill Counties	62
Unit 134, Pancake Range: Nye County.....	62

Unit 161, Toquima Range: Northern Nye County	63
Unit 163, Hot Creek Range: Nye County	64
Unit 173, Toiyabe Range: Northern Nye County.....	65
Unit 181, Fairview Peak, Slate Mountain, and Sand Springs Range: Churchill County	65
Unit 183, Clan Alpine Range: Churchill County	66
Unit 184, Desatoya Range: Churchill and Lander Counties.....	67
Unit 202, Wassuk Range of Mineral County	67
Unit 205, Gabbs Valley Range, Gillis Range, Pilot Mountains: Eastern Mineral County.....	68
Unit 206, Excelsior Range: Mineral County.....	68
Unit 211, Monte Cristo Range, Silver Peak Range, and Volcanic Hills: Esmeralda County.....	69
Unit 212, Lone Mountain: Esmeralda County	70
Unit 252, Stonewall Mountain: Nye County.....	70
Unit 133, 245, Pahrangat and Mount Irish Ranges: Lincoln County	71
Unit 221, South Egan Range: Lincoln County.....	72
Unit 223, 241, Hiko, Pahroc, and Delamar Ranges: Lincoln County	72
Unit 243, Meadow Valley Mountains: Lincoln County	73
Unit 244, Arrow Canyon Range: Northern Clark County.....	73
Unit 253, Bare Mountain and Specter Range: Southern Nye County.....	74
Unit 261, Last Chance Range: Southeastern Nye County.....	75
Unit 262, Spring Mountains (La Madre, Red Rock and South Spring Mountains) and Bird Spring Range: Western Clark County.....	76
Unit 263, McCullough Range and Highland Range: Southern Clark County.....	77
Unit 264, Newberry Mountains: Southern Clark County	78
Unit 265, South Eldorado Mountains: Southeastern Clark County	79
Unit 266, North Eldorado Mountains: Southeastern Clark County.....	80
Unit 267, Black Mountains: Eastern Clark County	81
Unit 268, Muddy Mountains: Clark County.....	82
Unit 271, Mormon Mountains: Lincoln County	82
Unit 272, Virgin Mountains and Gold Butte: Northeastern Clark County	83
Unit 280, Spotted Range: Northwestern Clark County.....	84
Unit 281, Pintwater Range: Northwestern Clark County	85
Unit 282, Desert Range: Northwestern Clark County	86
Unit 283, 284 East Desert Range and Sheep Range: Northern Clark County	86
Unit 286, Las Vegas Range: Clark County	87

CALIFORNIA BIGHORN SHEEP..... 89

Unit 012, Calico Mountains and High Rock Canyon: Western Humboldt and Washoe Counties..	89
Unit 011, 013, Vya Rim, Massacre Bench and Hays Canyon Range: Washoe County	90
Unit 014, Granite Range: Washoe County.....	91
Unit 022, Virginia Mountains: Washoe County.....	91
Unit 031, Montana and Trout Creek Mountains: Humboldt County	92
Unit 032, Pine Forest Range and McGee Mountain: Humboldt County	93
Unit 033, Sheldon National Wildlife Refuge: Washoe and Humboldt Counties	94
Unit 034, Black Rock Range: Humboldt County	95
Unit 035, Jackson Mountains: Humboldt County	96
Unit 041, Sahwave Mountains, Pershing County.....	97
Unit 051, Santa Rosa Range: Humboldt County.....	98

Units 066, 068, Snowstorm, Sheep Creek, and Santa Renia Ranges: Western Elko and Northern Lander and Eureka Counties.....	99
ROCKY MOUNTAIN BIGHORN SHEEP.....	100
Unit 074, The Badlands: Elko County	100
Unit 101, East Humboldt Range: Elko County	100
Unit 102, Ruby Mountains: Elko County.....	101
MOUNTAIN GOAT	103
Unit 101, East Humboldt Mountains: Elko County	103
Unit 102, Ruby Mountains: Elko County.....	103
Unit 103, South Ruby Mountains: Elko and White Pine Counties.....	103
MOUNTAIN LION	105
Western Region: Units 011–015, 021, 022, 031, 032, 034, 035, 041–045, 051, 181–184, 201–206, 192, 194–196, and 291	105
Eastern Region: Units 061-068, 071-079, 081, 101-108, 111-115, 121, 131-134, 141-145, 151-155	108
Southern Region – Units 161– 164, 171-173, 211, 212, 221–223, 241–245, 251–253, 261–268, 271, 272.....	111

BIG GAME STATUS
STATEWIDE SUMMARY

MULE DEER

Hunter success in 2004 for resident any legal weapon hunters improved from 2003 but was still below long-term averages. Resident rifle hunters posted a hunter success of 43%. muzzleloader hunters were at 34%, and archers at 13%. Nonresidents enjoyed much higher rates: rifle hunters - 52%, muzzleloader hunters - 42%, and archers - 18%. Comparing point class in the harvest for buck hunts, resident rifle hunters harvested 38% (+5% from 2003) 4-points or better and nonresident hunters harvested 54% (+6% from 2003) 4-points or better. Resident youth hunters continued with their relatively high hunter success of 57%.

The primary parameters we use to evaluate the current status and trend of the herd are spring fawn ratio's, body condition, and recent snowpack and moisture values for the various water basins. The northwestern portion of the state remained fairly dry and drought stricken in 2004. However, the northeastern units were treated to significant amounts of spring, summer, fall, and winter precipitation. The benefits of this much need moisture was realized by many hunters in 2004 and is evident at numerous taxidermy shops.

The 2005 statewide spring fawn ratio was up slightly over the last 3 years at 35 fawns/100 adults. Regionally, northwestern deer herds showed much higher fawn ratios than the statewide average. The northeastern units were slightly lower than the northwestern units but still showed some improvements over last year. Area 10, the largest herd in the state, recorded a 40 fawn ratio, up from 29 in 2004. Area 7 also recorded a fawn ratio of 40, while Area 6 had a 35 fawn/100 adult ratio. Unfortunately, the central Nevada deer herds had ratios of only 30 or less fawns/100 adults, which is not enough to produce herd growth.

The statewide fawn ratio remains below long-term historic averages. Despite the slight increase in the 2005 spring fawn ratio, greater fawn recruitment is required to achieve herd growth comparable to historic levels. Many of our mule deer habitats are in worse shape today than in any time in the recent past. Consequently, there are higher mortality rates now than in the past. Whether winter weather extremes and lack of thermal cover, excessive energy expenditures, or lack of cover to hide fawns from coyote predation, or lack of quality forage to maintain body condition to prevent diseases, or a little bit of each, the combination is taking a higher toll on our deer herds based on the few parameters we collect and analyze each year. There still is much to learn regarding mortality factors or combinations of factors impacting mule deer survival.

The Department finalized a biological bulletin on mule deer in 2004 that provides an overall assessment of Nevada's mule deer populations both past and present. The bulletin examines mule deer population dynamics in Nevada and discusses the issues and influences of the ups and downs of Nevada's mule deer. This bulletin provides the basis for discussions and planning efforts to formulate effective strategies to prevent deer herds from further declines. Without the combined support of land management agencies, sportsmen, general publics, and ranchers, maintenance of our current deer numbers will not occur.

PRONGHORN ANTELOPE

Post-season aerial and ground surveys during 2004 resulted in the classification of almost 8,500 pronghorn, yielding a ratio of 40 bucks/100does/44 fawns. In comparison, the 2003 statewide composition survey resulted in the classification of approximately 5,200 pronghorn with a ratio of 39 bucks/100 does/43 fawns. Fawn ratios have remained high for the past two years and are an indication of favorable moisture and habitat conditions that existed during 2003 and 2004.

Buck ratios continue to edge up as good recruitment rates allow populations to climb. The statewide adult population estimate has increased from 18,500 pronghorn in 2004 to slightly over 20,000 animals in 2005. This is the highest recorded population in the history of Nevada.

The 2004 hunter success rates of 80% for pronghorn rifle hunters and 26% for pronghorn archery hunters are consistent with long-term average hunter success rates. The total of 1,323 pronghorn reported harvested in 2004 is only 7% below the record harvest established in the early 1990's.

The Department continues to coordinate with land management agencies to secure sites to establish or augment pronghorn herds to further restore pronghorn to their historic distribution and prominence in Nevada. Since 1950 almost 2,500 pronghorn have been released at approximately 40 sites in Nevada. For many potential release sites, extensive coordination is required through land-use planning processes to receive concurrence from land managers. In addition, many areas lack proper water availability and distribution, which requires further coordination in order to secure water from existing private sources for pronghorn or to build water developments specifically for pronghorn.

ROCKY MOUNTAIN ELK

The 2004 elk seasons resulted in the harvest of 994 elk compared to 1,051 last year. The 2004 elk harvest consisted of 518 bulls and 476 antlerless elk. The quality of bulls in the harvest remains high with 69% of bulls harvested by all hunts and weapon classes reported as being 6-points-or-better. In those units that are near or approaching population objectives, harvest strategies are designed to maintain population objectives with a combination of bull harvest and intensive cow harvest. Elk populations continue to thrive and increase in units where elk populations are below objectives. In the Elk Planning arena, technical review teams are working on revisions of sub-plans for the Lincoln County and White Pine County Elk Plans. In addition, The Nevada State Board of Wildlife Commission in response to concerns expressed that there was a need to increase the knowledge, interest and participation in elk planning by sportsmen and the public in general, established an Elk Species Management Plan Sub-Committee to take input and develop a protocol that would guide the Nevada Department of Wildlife in future elk planning efforts.

A total of 4,506 elk was classified during annual aerial winter composition surveys. The statewide elk herd composition ratio is 38 bulls/100 cows/45 calves compared to the previous year when 4,506 animals were classified, yielding a ratio of 35 bulls/100 cows/37 calves. Calf recruitment was good in 2005 and has provided an increase in numbers for the overall state elk population estimate in spite of aggressive cow elk harvest that has been implemented where needed to keep elk herds at or below population objectives. The 2005 statewide spring adult elk population estimate is approximately 7% higher than last year with 8,000 elk estimated compared to 7,400 last year. Nevada's elk harvest management continues to be based on meeting population objectives within the guidelines of the state's Elk Species Management Plan. Hunters lucky enough to receive an elk tag for 2005 should enjoy good hunting conditions with overall healthy elk populations and excellent availability of mature bulls for harvest.

DESERT BIGHORN SHEEP

Over 2,700 desert bighorn sheep were classified during aerial bighorn sheep surveys conducted during 2004. Lamb production appears to be good, especially in many of the southern Nevada

herds where drought conditions had severely reduced lamb numbers in previous years. The statewide survey resulted in a ratio of 60 rams/100 ewes/45 lambs. With favorable habitat conditions because of increased moisture and good lamb production, the statewide estimate for 2005 increased to 5,400 animals.

Nevada continues to provide outstanding opportunity to hunt desert bighorn rams. As reflected in the number of first-choice applicants, the desire to hunt bighorn sheep continues to outstrip available tags. Resident hunters sought 120 tags that resulted in draw odds ranging from 11 to 1 up to 141 to 1. Among nonresidents, draw odds for 13 tags ranged from 85 to 1 up to 1,578 to 1. In 2004, 138 tags including Heritage tags and Partnership In Wildlife tags were issued. Overall, resident hunters enjoyed a success rate of 91%, this compares to 90% in 2003. The average hunt duration was 6.1 days. Harvested rams averaged 6.1 years of age and 150 3/8 B&C points.

Restoration of bighorn sheep populations into historic ranges remains an important goal in Nevada. In the later half of 2005, augmentations are planned for at least the Grant Range and Virgin Mountains.

CALIFORNIA BIGHORN SHEEP

Department biologists conducted aerial surveys in all California bighorn hunt units during the late summer and fall of 2004 with the exception of Units 066 and 068. A total of 657 sheep was observed during these flights. This represents a 6 percent reduction from total numbers observed during the 2003 surveys but remains above the long-term average. A total of 174 rams, 308 ewes and 175 lambs was observed which results in a ratio of 56 rams/100 ewes/57 lambs. Average ram and lamb ratios showed increases over 2003 levels.

Last year a total of 35 tags were issued to hunt California bighorn in Nevada. Harvest information shows that 32 hunters were successful in harvesting a ram for a 91 percent success rate. These hunters averaged 5.7 days in the field. The average age of their rams was 7.3, which was up slightly from the 2003 average of 6.8. The average score of the 32 rams harvested was 152 2/8 inches.

Overall, California bighorn populations continue to do well in Nevada. Bighorn in units 011, 012 and 013 continue to expand in distribution and numbers while sheep in Unit 014 are beginning to increase after a recent dieoff. An apparent loss of sheep in the south end of Unit 051 the Santa Rosa Range that occurred during the fall and winter of 2003-04 has stabilized. Population estimates for 2004 indicate a stable statewide population of 1,500 California bighorn.

ROCKY MOUNTAIN BIGHORN SHEEP

Rocky Mountain bighorn sheep populations remain stable to slightly increasing. Lamb production remained high this past year and is helping populations recover from the bighorn sheep die-offs that occurred in most herds during the mid to late 1990's. Summer and winter aerial surveys resulted in classification of 270 bighorns, indicating a ratio of 51 rams/100 ewes/65 lambs. This lamb production is very encouraging, especially for the Badlands area (Unit 074) where more lambs were observed this past year than on any survey in the past.

The 6 Rocky Mountain bighorn sheep tags issued in 2004 ties the highest number of tags ever issued for this subspecies (2003). Five of the six hunters were successful and harvested rams averaged 8.0 years of age and 176 7/8 B&C score.

All population indices are encouraging and the lucky tag applicants who draw a 2005 Rock Mountain bighorn sheep tag should have an experience of a lifetime pursuing this magnificent animal. This tag is the most highly sought-after resident big game tag in Nevada with over 500 applicants for every tag sold.

MOUNTAIN GOAT

The mountain goats of the East Humboldts and Rubies continue to do well. Over the last few years, we have witnessed dramatic increases in the opportunity to hunt this unique trophy species. Despite the increased opportunity, we continue to have very high hunter success rates (79% - 2004, 96% - 2003, 78% - 2002, and 96% - 2001). Despite significant increases in tag numbers of the past five years we continue to maintain a high average age of harvested animals (approx. 5 years) in Unit 102. However, 2004 goat harvest in Unit 101 yielded the fourth consecutive year of decrease in the average age (3.2 years) of harvested animals. Even with a decrease in the average age of harvested animals in Unit 101 and mediocre production in both units in 2004 (32 young per 100 adults), high survey sample size (216) indicates the populations remain large and stable.

As expected, due to the severe summer drought conditions we have witnessed a decrease in production in the most water-limited habitat, Unit 103. However, spring and summer precipitation during 2004 was up considerably and back to back years with average to above average snow pack should boost production and survival in all areas, especially the driest, Unit 103. Excluding a significant disease event and allowing for near normal precipitation, this species should continue to provide opportunity at current levels and above.

MOUNTAIN LION

The 2004-05 mountain lion season resulted in the hunter harvest of 105 lions compared to the previous year's hunter harvest of 192. The 2004-05 harvest is 45% lower than the previous year's hunter harvest and 24% lower than the 20 year average for hunter harvest. Total lion take from the state was 137 lions, down 39% from last year's total of 225. These decreases are most likely a result of weather conditions which in many cases prohibited access to hunting areas.

During the 2004-05 season, the Department began collecting a tooth sample from each harvested lion. Teeth will be sent to a lab for age analysis. This information will provide better information to managers and strengthen population model accuracy.

Sport harvest was 30% of the statewide harvest objective of 349 mountain lions, and estimated to be less than 5% of the statewide population. Males constituted 61% of the total 2004-05 sport harvest compared to the 20-year average of 58%. The average age of sport harvested mountain lions for the 2004-05 season was 4.1 years of age compared to the 20-year average of 4.6 years. No significant change in the age or sex composition of the mountain lion population was noted indicating mountain lion populations are stable.

WEATHER AND CLIMATE EFFECTS

This is a new section to the Big Game Status Book. Weather events and climate play a huge role in the status and trend of big game populations in Nevada. This section is intended to give a general overview of the various regions of the state on how weather and climate affects habitat conditions and animal survival and production. Table 1 displays snow moisture content and total precipitation for all major water basins in Nevada through 23 April 2005.

Central Nevada

In central Nevada, data published by the Western Regional Climate Center (WRCC) indicated the spring-early summer 2004 (March – June) received below average precipitation. Below average precipitation during this period can create difficult range conditions for wildlife populations, as has been the case in central Nevada recently. Fortunately, above average precipitation was received during late summer and early fall 2004 that allowed for an increase in vegetation vigor and nutritional quality. This timely improvement in conditions likely allowed wildlife populations to recover somewhat and to enter the 2004-2005 winter in better shape than in past years. Above average precipitation receipts were recorded in the late fall and winter at the Big Creek Summit Site during all months except December and February. As of April 2005, data published by the Natural Resources Conservation Service (NRCS) indicated the Lower Humboldt River Basin (closest climate basin to central Nevada) is slightly above the long-term average for snowpack conditions. Data for northern Nye County indicated above average snowpack conditions for the same time period.

The 2004-2005 winter survival of wildlife was favorable. Although winter precipitation has been above normal in central Nevada as well, periods of warmer weather between storms has allowed lower elevation winter habitats to remain open and available to wildlife. Animals should enter the upcoming spring birthing periods in good body condition. Habitat conditions should improve due to recent favorable weather patterns experienced in central Nevada in at least the short-term.

Southeastern Nevada

According to BLM rain data, 26 areas throughout Lincoln County received an average of 123% of the previous 9-year average precipitation between March and November 2004. According to WRCC/DRI, the weather station in Pioche indicates that over 100% of the average annual precipitation has fallen since October 2004. Heavy rains that fell on top of a relatively heavy snowpack resulted in a dramatic flooding event in Lincoln County in January 2005. Drought conditions that have persisted after the devastating drought of 2002 have eased with above-average precipitation. In 2002, Lincoln County suffered through the driest year on record, receiving approximately 10% of average precipitation for the entire year. Adult big game animals were observed and reported in poor condition, and surveys results indicated poor recruitment for big game populations. Presently, habitat conditions following above-average precipitation should result in better body condition and increased survival for adults and juveniles.

Southern Nevada (Mojave Desert)

In southern Nevada, dramatic reversal of environmental conditions has occurred within the last five years. With few exceptions, bighorn populations endured severe drought for three consecutive years beginning in 2000 (2000-02). The National Weather Service Forecast Office in Las Vegas (NWSFO), reported 2002 year-end precipitation receipts of only 1.44 inches (32% of normal). Moreover, 2002 was the sixth driest year on record.

The scarcity of highly digestible, nutritious forage plant species during this period was manifested in population declines as recruitment of young animals and adult survivorship fell to record lows. In many mountain ranges, bighorn sheep were further stressed due to lack of water availability at otherwise reliable springs, seeps and water developments.

Beginning in February 2003, environmental conditions greatly improved. According NWSFO, 2003 ranked the eighth wettest year on record after receiving 6.86 inches of precipitation. In Clark, southern Lincoln and extreme southern Nye counties, bighorn sheep populations benefited from high forage plant production and increased water availability. Throughout 2004, favorable environmental conditions prevailed. NWSFO reported 7.76 inches of precipitation in 2004 (173% of normal). Contributing to the 2004 total rainfall amount in Las Vegas, February ranked as the ninth wettest month on record.

Based on rain gauge data collected by Clark County Regional Flood Control District, United States Geologic Survey and National Weather Service, field stations near and in the Muddy Mountains, McCullough Mountains and River Mountains reported high precipitation totals. In and near the north Muddy Mountains including the Rogers Ridge area, two field stations reported 2004 rainfall totals of approximately 7 and 9 inches. In and near the western portion of the McCullough Range, two field stations reported 2004 rainfall totals of approximately 6 and 7.5 inches. Through February 2005, the same stations have already reported approximately 3 and 4 inches of rain. Two field stations situated to the northwest of the River Mountains reported 2004 rainfall totals of approximately 7 and 7.5 inches. Through February 2005, both stations have already reported approximately 3.2 inches of rain.

As of this writing in mid March 2005, environmental conditions are favorable. On a regional scale, forage species (i.e., succulent annuals and perennial grasses) common in bighorn sheep diets are growing in profusion from valley bottoms to ridgelines and peaks. In Spring 2005, forage quality and quantity will be sufficient to meet bighorn sheep energy and protein requirements for maintenance, lactation, and growth.

Western and Northwestern Nevada

After several continuous dry years, western Nevada is expected to see average to well above average streamflows and exceptional vegetative growth in 2005. Unfortunately, the dry pattern has only marginally improved for northwestern Nevada, with streamflows expected to be only half of average this season.

Snowpack conditions for 1 April 2005 for extreme northern Nevada remains below average and western Nevada including the Sierras have well above average snowpacks. The month of March 2005 began with little snowfall, but late March brought a series of wet, wintertime like storms. What was beginning to look like a repeat of the last few disappointing years has ended with average to well above average snowpack values for the Truckee, Carson, and Tahoe Basins. Though severe snow depths existed in January 2005 for wintering Sierra Nevada mule deer herds, only moderate mortality occurred in these herds. South-facing slopes burned off within a few weeks, providing most deer with open areas and accessible forage. The Northern Great Basin area of northern Washoe and Humboldt counties was average to slightly below average snowpack.

Grass and forb production has been tremendous during the spring 2005 throughout most of the region. Shrubs that are critical forage for mule deer, are showing signs of producing a tremendous amount of leader growth in 2005. But if summer precipitation does not continue, this growth will be curtailed. Summer precipitation is key to maintaining plant vigor to allow nutritional quality to remain high for big game to accumulate fat reserves going into the fall months.

Northeastern Nevada

After several back to back dry years, most of northeastern Nevada is expected to see above average streamflows this year. The Snake and Owyhee River Basins will likely see only average streamflows in 2005. The upper and lower Humboldt systems should see above average water this year. White Pine County will see well above average runoff.

April 1 snowpack conditions for eastern Nevada was tremendous at over 200% of normal. Unfortunately, the northern portion of Elko County and the Clover Valley area on the east side of the Rubies/East Humboldt range ended at 80 – 90% of average snowpack.

Grass and forb production has been tremendous during the spring 2005 throughout most of the region. Extensive forb production can contribute to a highly nutritional diet for all big game species through the early summer months. Shrubs, such as bitterbrush, serviceberry, Ceanothus, snowberry, Elderberry, chokecherry, current, sagebrush, and mahogany, critical forage for mule deer, are showing signs of producing a tremendous amount of leader growth in 2005. But if summer precipitation does not continue, this growth will be curtailed. Summer precipitation is key to maintaining plant vigor to allow nutritional quality to remain high for big game to accumulate fat reserves going into the fall months.

A key concern with the excessive early grass and forb production, is the extreme potential for fine fuel production. At low to mid elevation sites, where there is extensive distribution of exotic and invasive plants, having tremendous plant growth this spring and early summer could result in a severe wildfire season, if the summer 2005 is dry.

TABLE 1. Water basin climate data from SNOTEL monitoring stations throughout Nevada and the Sierra Nevada Mountains for snow water equivalent of snowpack as of 23 April 2005 and total water year precipitation from 1 October 2004 – 23 April 2005 in inches (Natural Resources Conservation Service).

BASIN	Data Site Name	Elev (ft.)	Snow Water Equivalent			Total Precipitation		
			Current	Average	% of Avg	Current	Average	% of Avg
NORTHERN GREAT BASIN					100			92
	Cedar Pass	7100	16.5	16.1	102	22.5	26.9	84
	Dismal Swamp	7000	30.3	26.4	115	36.9	39.5	93
	Disaster Peak	6500	0.1	4.2	2	16.2	16	101
	Sheldon	5860	-M	0	*	-M	6.2	*
TRUCKEE RIVER					134			106
	Mt Rose Ski Area	8850	48.3	42.4	114	53.2	45.6	117
	Independence Lake	8450	51.3	43.5	118	46.1	37.6	123
	Big Meadow	8300	25.4	18.8	135	32.5	29	112
	Squaw Valley G.C.	8200	74.8	51.2	146	57.9	58.5	99
	Independence Camp	7000	19	13.9	137	27.3	30.6	89
	Css Lab	6900	38.8	26.3	148	67	63.4	106
	Independence Creek	6500	12.5	7.6	164	26.8	29.7	90
	Truckee #2	6400	17	9.8	173	33.2	30.7	108
LAKE TAHOE					153			109
	Heavenly Valley	8850	36.4	25.2	144	35.3	26.9	131
	Hagan'S Meadow	8000	17.6	10.2	173	28.1	25	112
	Marlette Lake	8000	33.4	20.4	164	35.1	28.3	124
	Echo Peak	7800	54.5	31.2	175	57	54.3	105
	Rubicon #2	7500	39.9	27.6	145	39.5	39	101
	Tahoe City Cross	6750	7.5	7.9	95	36	32.2	112
	Ward Creek #3	6750	48.1	31.7	152	61.5	63.2	97
	Fallen Leaf	6300	0.1	1.1	9	28.7	26.6	108
CARSON RIVER					156			114
	Ebbetts Pass	8700	43.9	34.6	127	53.1	47.5	112
	Horse Meadow	8631	26	-M	*	26.2	-M	*
	Carson Pass	8500	49.2	-M	*	46.6	-M	*

BASIN	Data Site Name	Elev (ft.)	Snow Water Equivalent			Total Precipitation		
			Current	Average	% of Avg	Current	Average	% of Avg
	Monitor Pass	8350	20	11.8	169	24.3	19.7	123
	Burnside Lake	8139	29.8	-M	*	41.5	-M	*
	Forestdale Creek	8029	32.9	-M	*	50.1	-M	*
	Blue Lakes	8000	46.1	31.5	146	43.7	40.2	109
	Poison Flat	7900	29.1	11	265	33.2	28.2	118
	Spratt Creek	6200	0	0.4	0*	29.4	25.8	114
SNAKE RIVER					95			94
	Bear Creek	7800	20.2	20.5	99	24.4	25.6	95
	Pole Creek R.S.	8330	18.1	20.8	87	12.4	13.6	91
	Seventysix Creek	7100	6.7	5.9	114	14.9	15.7	95
OWYHEE RIVER					99			94
	Big Bend	6700	2.9	4	72	10.5	12.3	85
	Fawn Creek	7000	17.2	16.6	104	24.6	25.9	95
	Jack Creek Upper	7250	18	18.9	95	21	21.8	96
	Jacks Peak	8420	-M	-M	*	28.3	28.5	99
	Laurel Draw	6700	5.3	3.5	151	17.8	20.4	87
	Taylor Canyon	6200	0	0.8	0	8.2	9	91
UPPER HUMBOLDT RIVER					161			122
	Corral Canyon	8500	27.9	17.2	162	27.3	21.1	129
	Dorsey Basin	8100	19.9	11.9	167	27.3	23	119
	Draw Creek	7200	7.8	5.5	142	15.8	14.3	110
	Green Mountain	8000	16.7	10.2	164	28.8	23.1	125
	Lamoille #3	7700	-M	9.8	*	-M	22.8	*
LOWER HUMBOLDT RIVER					114			93
	Big Creek Summit	8700	28.2	18.9	149	19.7	19.3	102
	Buckskin Lower	6700	8.2	5.2	158	17.2	19.7	87
	Lewis Peak	7400	11.2	-M	*	19.4	-M	*
	Granite Peak	7800	20	25.3	79	22.6	25.8	88
	Lamance Creek	6000	-M	5.5	*	20.7	21.5	96
CLOVER VALLEY					106			99
	Hole-In-Mountain	7900	18.2	17.2	106	24.9	25.2	99
EASTERN NEVADA					278			158
	Berry Creek	9100	-M	15.6	*	28.4	17.4	163
	Diamond Peak	8000	5.5	2.2	250	21.7	16.4	132
	Ward Mountain	9200	23.4	8.2	285	26.1	14.4	181

BIG GAME HERD
STATUS REPORTS

MULE DEER

MULE DEER

Units 011 - 015: Northern Washoe and Western Humboldt Counties

Report by: Chris Hampson

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section

Survey Data

Unit 015 is an interstate deer herd and is managed jointly by California Fish and Game and the Nevada Department of Wildlife. This year, California biologists conducted fall deer surveys in Unit 015 and Nevada biologists, classified mule deer in the spring. NDOW biologists conducted both post-season and spring composition surveys in hunt Units 011 thru 014.

A combined total of 804 mule deer was classified while conducting post-season surveys in Management Area 1. The sample provided a composition ratio of 35 bucks/100 does/70 fawns. Buck ratios were observed to be slightly lower this year but remain well above post-season objectives for the Management Area. The 70 fawns per 100 does observed during the fall surveys is excellent production for this herd and was 30% above the previous year's ratio of 54 fawns per 100 does.

Spring composition surveys were completed the first week of March 2005. All hunt units were surveyed and a total of 646 mule deer were classified as 439 adults and 207 fawns. The resulting ratio of 47 fawns/100 adults is considered very good recruitment for the Management Area 1. This ratio observed during converts to 64 fawns/100 does. The long-term average for this herd is 42 fawns/100 does (Figure 1). Winter fawn loss for the herd is estimated to be 9%. Spring fawn ratios ranged from 44 fawns/100 adults in Unit 014, to a high of 49 fawns/100 adults in Unit 015. The good recruitment figures indicate that mule deer fared well despite significant snowfall and cold temperatures experienced over much of Washoe County this past winter.

Snow accumulations this past winter were fairly significant in most of the mountain ranges and valleys in Washoe County. Mule deer were forced to move to lower elevation winter range earlier than normal but were able to find sufficient thermal cover and forage to survive the winter.

The much needed moisture will help to alleviate some of the negative impacts from six consecutive drought years. Habitat conditions for mule deer this spring and summer should be much improved compared with the last several years due to the increase in soil moisture and water availability. Mule deer are benefiting from the extensive green-up that is available this spring throughout Washoe County.

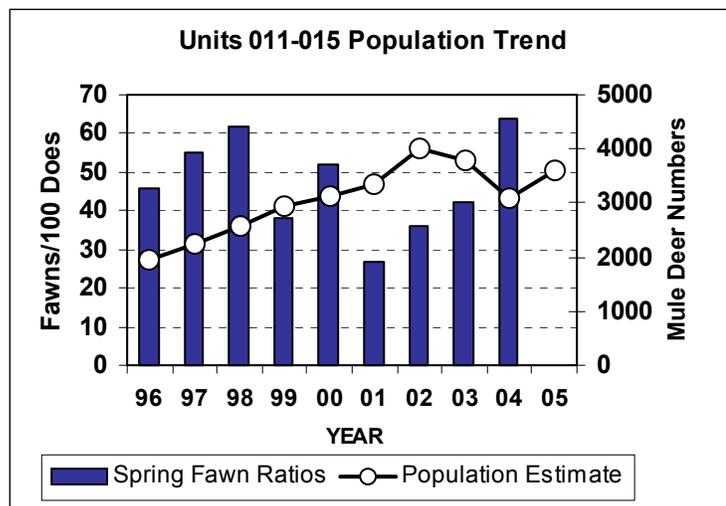


Figure 1. Observed fawn ratios and population trend for Northern Washoe County mule deer herds.

Population Status and Trend

The strong recruitment observed this year has allowed the Management Area 1 mule deer population to reverse the recent downward trend that it has experienced over the past two years. The excellent spring conditions will provide mule deer with much needed quality forage entering into the breeding season.

Despite, the increasing trend this deer population remains well below numbers experienced during the mid to late 1980's. Mule deer numbers in Management Area 1 are now estimated at 3600 animals.

MULE DEER

Units 021, 022: Southern Washoe County

Report by: Chris Hampson

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section

Survey Data

No post-season surveys were conducted in Management Area 2 in 2004. Aerial helicopter surveys were conducted in early March 2005. Units 021 and 022 were surveyed and a total of 464 mule deer was classified as 327 adults and 134 fawns. The spring fawn ratio from the sample was 41 fawns/100 adults. The sample of 464 mule deer observed on this years survey was 46% higher than the 2003 sample of 317. Deer numbers observed in Unit 021 increased as expected due to the heavy snow year, which forced more mule deer to migrate from California to their critical winter range here in Nevada. In Unit 022, the sample size increased 39% from 148 mule deer classified in 2004 to 205 in 2005. Heavier than normal snowfall and strong cold temperature inversions in the valleys concentrated the deer for survey.

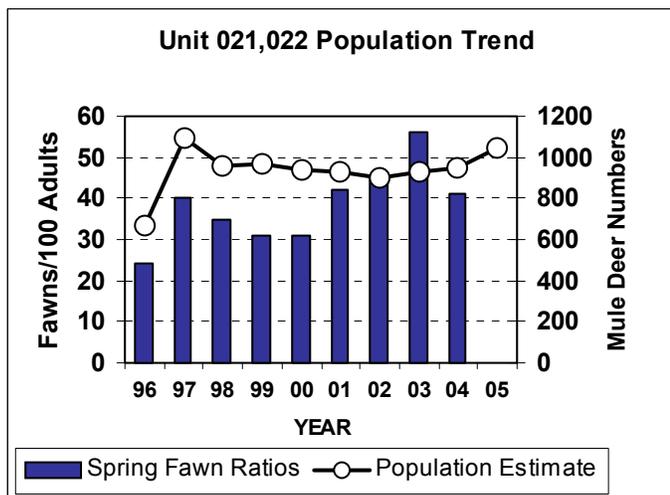


Figure 1. Observed fawn ratios and population trend for the Southern Washoe County mule deer herd.

Fawn ratios were higher than anticipated considering the difficult conditions that mule deer faced this past winter. Fawn ratios in 2005 were slightly lower than the 45 fawns per 100 adults observed in 2004. Heavier than normal snowfall followed by two weeks of fog and cold temperatures caused mule deer to move to extreme winter range in the lower elevations surrounding Sparks and the northern valleys. Mule deer evidently entered the winter with sufficient fat reserves to survive the difficult conditions. South slopes provided important open areas where mule deer could effectively locate the necessary amounts of forage and thermal cover to survive.

Population Status and Trend

Recruitment in 2005 will allow for a slight increase in overall deer numbers. The herd continues to show slight increases and decreases from year to year but is constantly losing ground to increasing human development (Figure 1). The number of deer inhabiting Management Area 2 has steadily declined over the last thirty plus years. As with many other mule deer populations living in close proximity to large cities and increasing development, the long-term prognosis for this herd is one of declining numbers over time due to the continued loss of mule deer habitat.

MULE DEER

Units 031, 032, 034, 035: Western Humboldt County

Reported by: Ed Partee

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section

Survey Data

A post-season helicopter flight was not conducted during the fall 2004. This year's spring composition surveys were conducted by helicopter in March 2005 and resulted in the classification of 956 deer. There were 620 adults and 336 fawns resulting in a ratio of 54 fawns/100 adults. The sample size is up from the 2004 survey of 600.

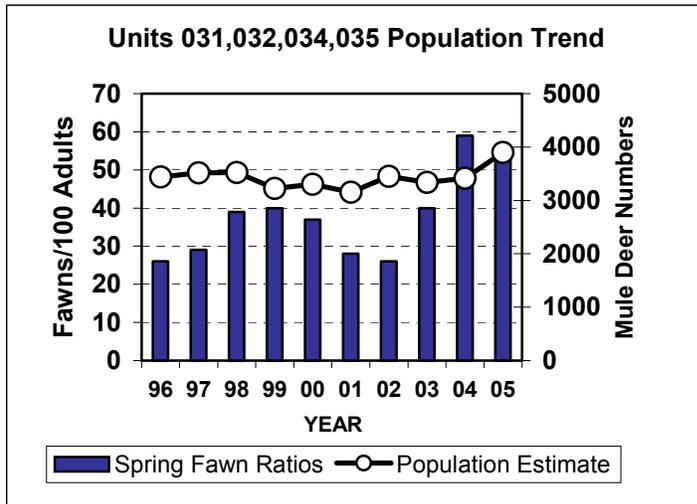


Figure 1. Observed fawn ratios and population trend for Humboldt County mule deer herds.

Population Status and Trend

In Management Area 3 excluding Unit 033, the population is up from last year. The 2005 pre-hunt population estimate is predicted to be approximately 4,000 compared to 3,500 in 2004. Survey conditions were good with moderate temperatures and a little better snow pack than previous years. There was a slight decrease in the fawn ratio, but adult survival was good. Figure 1 shows the spring fawn ratio and population estimate for Management Area 3 and the trends that have taken place over the last ten years. With the drought conditions and habitat loss that this area has experienced, the population seems to be holding

relatively constant despite small population fluctuations.

MULE DEER

Unit 033, Sheldon National Wildlife Refuge: Washoe and Humboldt Counties

Report by: Chris Hampson

Survey Data

Nevada Department of Wildlife biologists conducted post-season surveys in Unit 033 in mid-November 2004. Some areas normally flown in the fall were not surveyed this year. Therefore, the sample size obtained on this year's survey was smaller than the number of deer classified in recent years. A sample of 183 mule deer was classified as 30 bucks, 87 does and 66 fawns. The ratio for the sample was 34 buck/100 does/76 fawns. The 2003 ratio of 39 bucks/100does/87 fawns was obtained from a sample of 318 mule deer. The decrease in the buck ratio obtained in 2005 is thought to be merely a result of sampling bias due to the smaller number of animals classified. Actual buck ratios on the Sheldon are higher and more similar to the 39 bucks per 100 does observed in 2003.

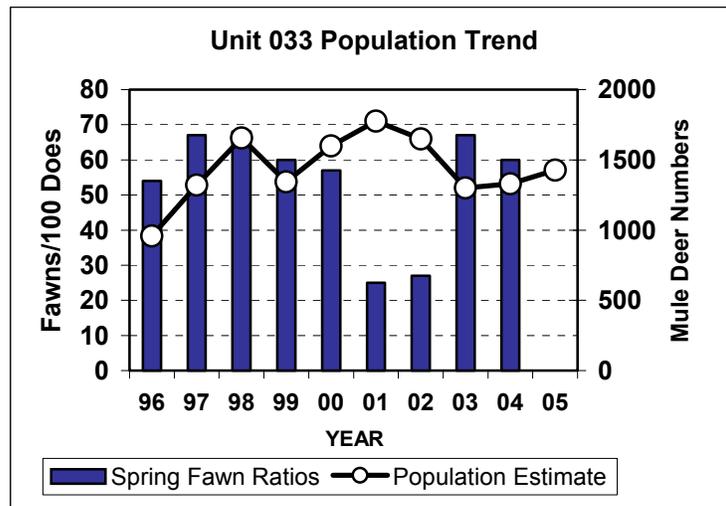


Figure 1. Observed fawn ratios and population trend for the Sheldon National Wildlife Refuge mule deer herd.

Spring flights were conducted in mid March 2005. Composition of the 104 mule deer classified on the survey was 72 adults and 32 fawns. The resulting ratio was 44 fawns per 100 does. The spring 2004 fawn ratio was only slightly higher at 47 fawns per 100 adults.

The number of animals classified on survey increased slightly this year. Traditional winter range in the Sagebrush Creek area is flown every spring. The number of animals observed during surveys in this area dropped significantly in the spring of 2003 but has slowly increased the last couple of years. The drop in numbers coincides with two consecutive below maintenance level recruitment years observed in 2002 and 2003. Obviously, the Sagebrush Creek area is only one of the major winter ranges for mule deer on the Sheldon, but the slow increasing trend observed over the last few years appears to mimic actual trend for this population.

Between 1998 and 2000 the average sample size was over 200 mule deer classified in the same area. In 1989 and 1990 sample sizes for the Sheldon spring surveys exceeded 400 mule deer. The number of mule deer observed on surveys from year to year can vary widely based upon weather or the particular years habitat conditions, however, deer on the Sheldon have very defined winter ranges and stay on their winter range throughout the early spring months.

Population Status and Trend

The second consecutive year of good recruitment will allow the Sheldon deer herd to continue on an upward trend (Figure 1, previous page). However, when compared with long-term estimates, mule deer numbers on the Sheldon remain depressed. It will require several consecutive good recruitment years before mule deer numbers rebound significantly. The population estimate for the 2005 herd year is estimated at 1,400 mule deer.

MULE DEER

Units 041, 042: Western Pershing and Southern Humboldt Counties

Report by: Kyle Neill

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

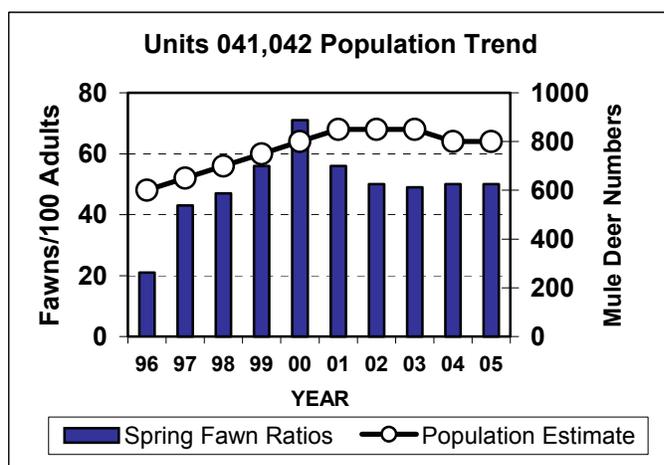


Figure 1. Observed fawn ratios and population trend for Western Pershing County mule deer herds.

same as last year's ratio of 50 fawns/100 adults (Figure 1).

Survey Data

Post-season mule deer surveys were not conducted in 2004. A limited aerial mule deer survey was conducted on 12 January 2005 in conjunction with the yearly Unit 041 California bighorn sheep composition survey in the Sahwave and Bluewing Mountains. A total of 21 mule deer was classified as 14 adults and 7 fawns for a calculated ratio of 50 fawns/100 adults. Twelve mule deer were observed on 7 March 2005 during the aerial spring mule deer survey in the Eugene Mountains Unit 042. Mule deer were difficult to locate in the Eugene Mountains due to the vast green-up that was taking place. The combined sample generated a total of 33 mule deer (22 adults and 11 fawns), which provided a fawn ratio of 50 fawns/100 adults. The observed 2005 fawn ratio is the

Population Status and Trend

Western Pershing County's mule deer population is continuing to rebuild from consecutive years of drought and past wildfires that have devastated crucial mule deer habitat. Range conditions this spring appear to be in relatively good condition from precipitation that was received this past winter. The herd has experienced high recruitment rates for the past two years. However, the herd has faced poor range conditions from the ongoing drought and previous wildfires, which has caused the population to remain static at an estimated 800 animals (Figure 1).

MULE DEER

Units 043 - 046: Eastern Pershing and Southern Humboldt Counties

Report by: Kyle Neill

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Post-season mule deer surveys were not conducted in 2004. Spring composition surveys occurred on 6 – 8 March 2005. The Sonoma, Tobin, Humboldt and the east side of the East Ranges were surveyed by helicopter. A record sample of 635 mule deer was classified as 429 adults and 206 fawns during the aerial surveys. The 2005 sample represents an increase of 48% from the 2004 sample of 428 animals and is an increase of 32% over the previous record sample of 482 animals that was acquired in 1998. The combined fawn ratio for the unit group was 48 fawns/100 adults. The 2005 fawn ratio is similar to the 2004 recruitment level of 50 fawns/100 adults. Snow cover was present at higher elevations on all of the unit group's ranges. This forced mule deer to use areas with an average elevation 5,500 feet. Mule deer were generally located in areas that had previously burned, but were now providing mule deer with extensive green-up.

Population Status and Trend

The Eastern Pershing County mule deer herd appeared to survive the past winter well. The herd has experienced two consecutive years of high recruitment rates and improved range conditions from the average winter precipitation that was received, which has also lead to further the recovery of areas that were burned from past wildfires. Another indication of herd growth is the increase in hunter success rates and the percent of 4 points or better bucks harvested (determined by point class data). Both hunter success and percent 4 points or better bucks harvested have increased in 2004 and are near their 10-year averages. Eastern Pershing County's mule deer herd has increased to a population estimate of 2,500 animals (Figure 1). If adequate spring and summer precipitation is realized, the population trend should continue to increase.

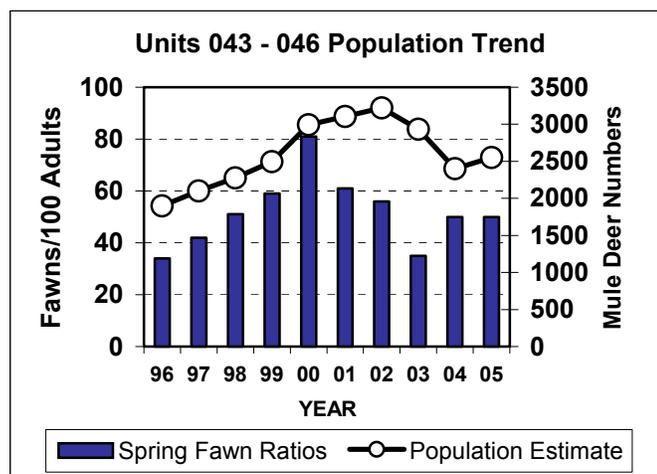


Figure 1. Observed fawn ratios and population trend for Eastern Pershing County mule deer herds.

MULE DEER

Unit 051, Santa Rosa Mountains: Eastern Humboldt County

Report by: Ed Partee

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

A post-season helicopter flight was not conducted during the fall of 2004. Spring composition flights were conducted in March 2005 and resulted in the classification of 662 deer. The classification resulted in 431 adults and 231 fawns with a ratio of 54 fawns/100 adults. This is a slight drop from the 2004 survey of 760 deer and fawn ratio of 56 fawns/adults.

Population Status and Trend

This year's population estimate for Unit 051 is approximately 3,000 compared to the estimate in 2004 of 3,200. Seasonal deer range lost to wildfires over the past two decades now exceeds 350,000 acres or approximately 550 square miles. Sagebrush habitat types, particularly in the winter use areas, have been converted to annual exotics as a result of wildfires. As reported in the past, this vegetative conversion has seriously reduced the capability of these sites to support adequate forage and cover to support deer through an annual cycle. It is estimated that less than 30-40% of the deer winter ranges remain intact. Deer populations may increase or decrease from year to year, but the overall trend is expected to decrease until which time the carrying capacity is met.

MULE DEER

Units 061 - 062, 064, 066 - 068, Independence and Tuscarora Ranges: Western Elko County

Report by: Ken Gray

Tag Quotas and Harvest Results

There were 490 rifle buck tags available in Area 6 (Units 061- 064, 066 - 068) in 2004. This was slightly higher (5%) than the 2003 quota. The hunter success rate for rifle buck hunters during the 2004 season was 50%, which was 4 percent higher than last year's success rate. Forty-six percent of all of the bucks harvested supported 4-points or better. The past 5-year-average for 4-point or better bucks was 36%. The length of the rifle season was 3 weeks. The objective of the shorter season was to maintain the mature buck segment of the herd. For 2004 hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

A spring helicopter survey was conducted in March 2005. A total of 5,211 deer was classified as 3,869 adults and 1,342 fawns. The young/adult ratio was 35 fawns/100 adults. This was 15 fawns/100 adults higher than last year's fawn ratio but was still 4 fawns/100 adults below the past 10-year -average. The fawn ratio was 22 fawns/100 adults higher on the northern winter ranges (Units 061 and 062) than on the southern winter ranges (Unit 068). As a follow-up to the helicopter survey, a ground survey was conducted in the Izzenhood Range in April 2005 to document deer mortality. The objective of the survey was to determine if there was significant adult mortality associated with the southern winter ranges. A total of 32 dead deer was classified as 26 fawns (81%) and 6 adults (19%) indicating no excessive adult mortality occurred.

Habitat

Deep snow (12 to 24 inches) accumulated on the southern deer winter ranges in early January 2005. Below average temperatures were recorded in the valley locations during the months of January and February which allowed deep snow to persist. Warmer temperatures occurred at the higher elevations (above 5500 feet), which melted snow from the south slopes. The majority of deer, especially in the Izzenhood Range, wintered at the higher elevations. Still, deep snow on the northern slopes and in the draws concentrated deer and made daily movement more difficult, especially for the fawns. The northern winter ranges located on the Owyhee Desert and on the J-P Desert received below average snowfall and above average temperatures and were open through most of the winter.

From 1999 through 2001, over 660,000 acres burned within Area 6. It is estimated that close to 90% of the crucial winter ranges in the southern part of the area have burned within the past 40 years. Cheatgrass and other exotic weeds now dominate most of these areas. Over \$1.3 million dollars have been spent trying to restore deer winter range values within Area 6. Many of these seedings have been successful and when grazed properly, have provided deer with improved winter habitat.

NDOW disced and seeded close to 600 acres of crucial winter range in 2004-2005 within the Izzenhood area. Approximately 150 acres of deer winter range within the Dunphy Hills were treated with the herbicide plateau in an attempt to control cheatgrass. The area will be seeded in the fall of 2005. Queenstake Mining Company Mitigation Money was used to accomplish these projects. Elko Bighorns Unlimited and NDOW paid for the modification of over 5 miles of a 52-inch high fence through crucial deer winter range in the Izzenhood Range.

The construction of the Pete Mine within the last remaining deer migration corridor in the South Tuscarora Range was initiated in 2004.

Despite spending considerable time with Newmont Gold Company and the Elko Bureau of Land Management in an attempt to design the project so that deer can continue to move through this area, it appears that this project has a high potential to impede deer migration through the area. This action has the potential to severely impact a significant segment of the Area 6 Deer Herd.

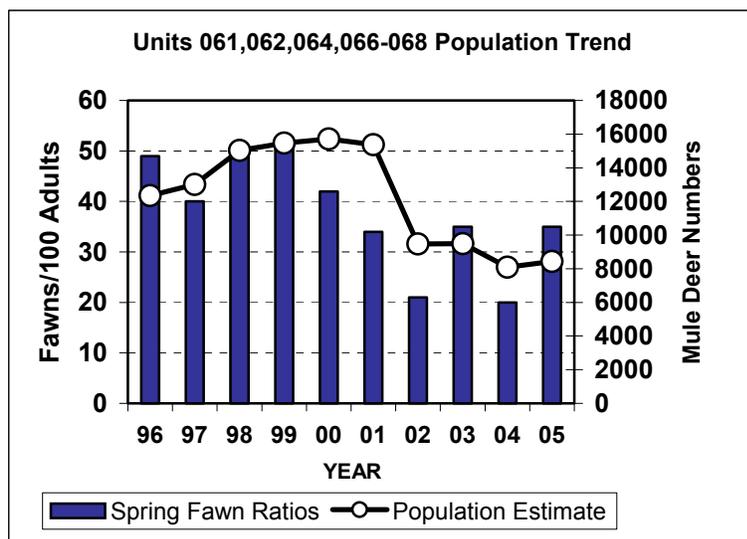


Figure 1. Observed fawn ratios and population trend for Western Elko County mule deer herds.

Population Status and Trend

The estimated population for the Area 6 Deer Herd increased by 3 percent over last year's estimate (Figure 1). The harsh winter of 2004-2005 in the southern winter ranges, combined with the poor

winter habitat conditions, resulted in moderate to high fawn mortality. The mortality rate on the fawn segment in the northern winter ranges was below average. The winter survival rate of the adult segment of the population, especially on the northern ranges appears to have been good. The high survival rate of adult deer was likely due to the fact that the deer population was at a very low level going into winter. Deer were close to the carrying capacity of their limited winter range, which most likely prevented a catastrophic adult die-off in the southern wintering areas. The seedings, especially at the upper elevations, also contributed to the survival rate of the deer herd. The full impact of the 2004-2005 winter on the Area 6 Deer Herd will be assessed in future years through surveys and hunter return cards.

During mild winters the Area 6 deer population will rapidly increase due to good summer habitat conditions. However, the poor winter range will dictate long-term population levels as it has done for 3 of the past 4 years. The carrying capacity of the winter range habitat is now estimated at between 8,000 and 10,000 deer. This is about 25 to 30% less than it was just 7 years ago and 65% less than it was 35 to 40 years ago. Continued aggressive restoration efforts combined with proper livestock grazing are needed to increase the winter habitat carrying capacity for deer in this management area.

No antlerless tags will be issued in 2005. However, antlerless hunts in the future may be recommended in order to keep the deer population compatible with the carrying capacity of winter ranges.

MULE DEER
Unit 065, Sulphur Spring Range: Southwestern Elko County
Report by: Sid Eaton

Tag Quotas and Harvest Results

There were 27 resident rifle buck tags issued for Unit 065 in 2004 compared to 28 in 2003. Rifle hunters harvested 19 bucks for a success rate of 70%. Fifty-eight percent of the bucks harvested in Unit 065 were four points or better. For additional 2002 hunting results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

No post-season helicopter survey was conducted in this unit in 2004. A spring helicopter survey was conducted during March 2005 and 85 deer was classified as 70 adults and 15 young. The ratio was 21 fawns/100 adults. The spring survey of 2004 resulted in a fawn/100 adult ratio of 25. The 2005 spring ratio was below the past 5-year-average.

Habitat

Long-term habitat conditions for deer are poor in Unit 065 due to the tremendous amount of habitat that was lost to fire in 1999. Heavy livestock grazing in several areas of crucial deer habitat and drought conditions have exacerbated these poor range conditions.

Population Status and Trend

Low spring fawn ratios this spring and for the past 5 years indicates the Unit 065 deer herd is not growing at the current time but is likely stable at a relatively low population level compared to pre-fire population levels.

MULE DEER
Units 071 - 079: Northeastern Elko County
Report by: Kari Martin

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Post-season surveys were flown this year in mid-December. A total of 2,958 mule deer was classified during the survey and yielded a ratio of 27 bucks/100 does/56 fawns. The fall fawn ratio was significantly below the previous 10-year-average (1992-2002) of 65 fawns/100 does. Spring survey flights were limited to a portion of Unit 071 this year. The remaining sample came from ground surveys resulting in a ratio of 40 fawns/100 adults with a sample size of 481 deer.

Population Status and Trend

Although this year's recruitment rate is slightly below the previous ten-year

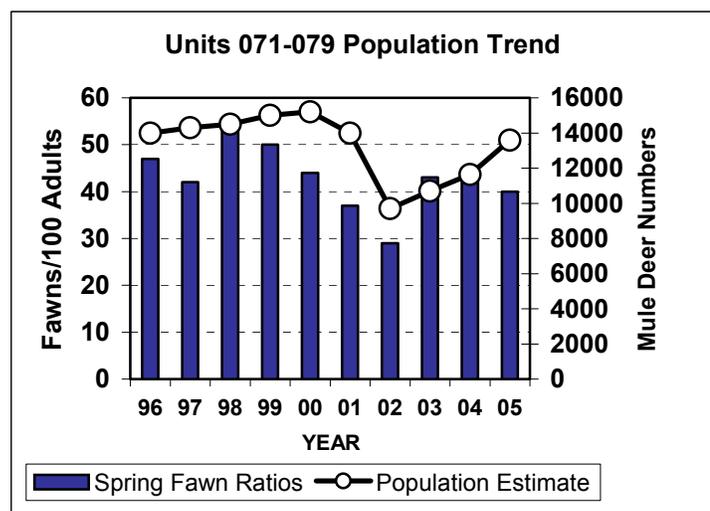


Figure 1. Observed fawn ratios and population trend for Northern Elko County mule deer herds.

average of 43 fawns/100 adults, it is still high enough to allow for population growth (Figure 1). The population model for Unit Group 071-079 predicts a pre-hunt adult mule deer population higher than the previous year, but less than the 1999-2001 population. Even if environmental conditions remain conducive to promote herd growth, the population may not be able to reach peak numbers that occurred in 1988 due to the significant loss of deer habitat from wildfires in much of Area 7.

The Area 7 deer herd was seriously reduced by 4 years of drought, wildfires, and the winter of 2001-02. Data collected during helicopter and ground deer surveys including spring fawn/adult ratios and sample sizes indicate the Area 7 deer herd is growing.

MULE DEER

Unit 081, Goose Creek Area: Northeastern Elko County

Report by: Kari Martin

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Post-season composition surveys were conducted in mid-December this year. A total of 328 deer was classified with a resulting ratio of 32 bucks/100 does/68 fawns.

Population Status and Trend

The Unit 081 mule deer herd has experienced a downward trend since 1998. This year's recruitment rate is believed to be slightly above average for this unit and deer herd numbers are expected to be improving. Overall this is a relatively small deer resource in terms of resident deer populations with some migration from both Idaho and Utah. The magnitude of this migration is dependent on weather conditions during the hunting season and timing of the hunt, with later seasons more likely to experience increased deer numbers from migration.

MULE DEER

Units 101 - 108: Southern Elko and Northwestern White Pine Counties

Report by: Tony Wasley

For specific 2004 hunting season results, please refer to Mule Deer Harvest Tables in the Appendix Section.

Survey Data

A post-season helicopter survey was conducted during the fall 2004. A total of 6,140 deer was classified as 905 bucks, 3,471 does, and 1,764 fawns, for ratios of 26 bucks/100 does/51 fawns. A spring helicopter survey was conducted in March 2005. During this survey 6,380 deer were classified as 4,553 adults and 1,827 young. The young/adult ratio was 40 fawns/100 adults.

Weather and Habitat

Northeastern Nevada received some much need moisture during the spring and summer 2004. The rain-induced improvements in forage quality on the summer ranges appear to have greatly benefited fawn production and recruitment (Figure 1). Spring fawn ratios were 5-6 fawns/100 does above the long-term average. The above-average snow pack and continued wet spring in Northeastern Nevada, provides hope for breaking out of the recent drought cycle.

Population Status and Trend

The Area 10 population is up from last year. Buffered from some of the drought related impacts by high mountains, that almost always receive precipitation, and unique geology that keeps the moisture near the surface, Area 10 deer survived the drought reasonably well and were able to capitalize on some much needed spring and summer moisture during 2004. Harvest management has been designed to facilitate population recovery since the devastating winter of 1992-93. Inaccessibility of the deer herd due to high elevation wilderness and relatively steep terrain allows for the recruitment of bucks into the older age classes. Good age class representation is observed throughout the buck segment of the population and hunters should continue to see many mature bucks. Expectations for population growth remain high and barring extreme winter conditions, we should continue to witness a positive trend in the Area 10 deer herd.

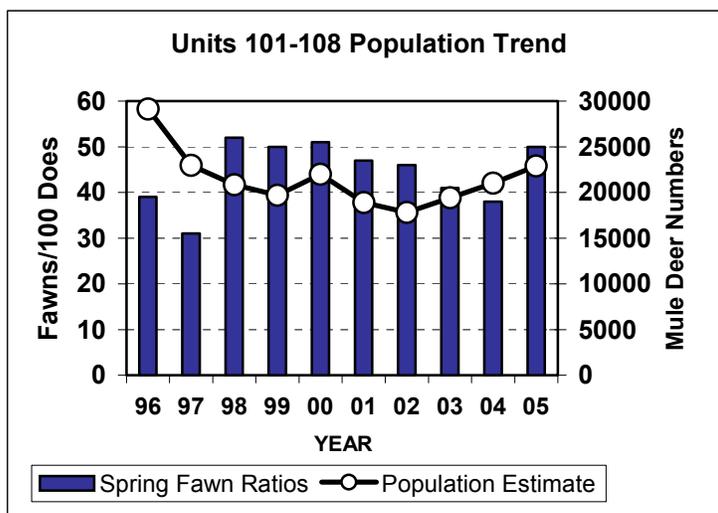


Figure 1. Observed fawn ratios and population trend of Southern Elko and northwestern White Pine County mule deer herds.

MULE DEER

Units 111 - 113: Eastern White Pine County
Report by: Curt Baughman

Seasons, Tag Quotas and Harvest Results

The total 2004 harvest was 514 deer, including 438 bucks and 76 antlerless deer. Hunter success was above average for the early any legal weapon hunt and below average for the late hunt. Weather during October was more conducive to successful deer hunting than in 2003. Abundant moisture late in the month may have caused access restrictions for late season hunters. For specific hunting season results, please refer to the Deer Harvest Tables in the Appendix.

Survey Data

No post-season composition survey has been conducted since 2000. The 2000 post-season helicopter deer survey was flown in mid-January 2001 in conjunction with the winter elk survey. Post-season herd composition data was obtained from all three units. The 2000 postseason sample of 3,144 deer was classified as 500 bucks, 1,799 does and 845 fawns for ratios of 28 bucks/100 does/47 fawns.

The spring 2005 helicopter sample of 2,343 deer follows samples of 1,850 and 1,585 deer classified during the 2004 and 2003 spring surveys. Conditions during the spring 2005 survey were excellent. Deer were restricted to bench areas due to abundant green-up and deep snow at higher elevations. There were 1,785 adults and 558 fawns in the spring 2005 sample, compared to 1,473 adults and 377 fawns observed in 2004. The recruitment of 40 fawns/100 does in 2005 follows 33 fawns in 2004 and 44 fawns recruited in 2003.

Habitat

Habitat conditions have deteriorated in recent years due to long-term drought. Precipitation levels in the Ely area have averaged 80% of normal over the past 6 years. Many water sources have disappeared

and the condition of vegetation (forage and cover) has suffered. However, the summer of 2004 brought average moisture for the first time since 1999. The result was improved forage quality that improved the body condition of mule deer. The ability of winter ranges to support deer was also improved. In much of the unit-group, the past winter was the wettest in over 30 years. Unlike Elko County, White Pine County experienced periods of temperature moderation, which prevented harsh winter conditions from developing. The generous moisture from the past fall and winter should bring further short-term habitat improvements including increased water distribution

Population Status and Trend

Following population increases in the late 1990s, decreasing recruitment levels from 1999 through 2004 resulted in a corresponding population trend (See Figure 1). The habitat improvements described above were reflected in a modest increase in fawn recruitment in 2005. Although the true population trend over the last year was relatively static, improved modeling techniques predict a lower estimate for 2005. The potential for increases in fawn production and recruitment in the upcoming year are good.

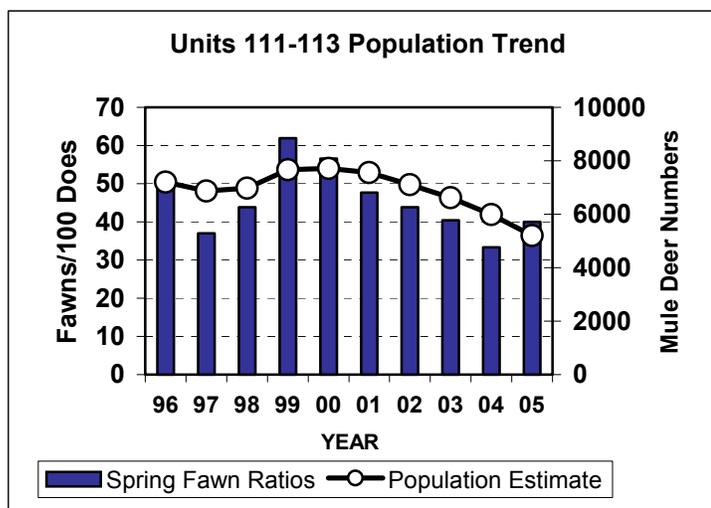


Figure 1. Observed fawn ratios and population trend for Northeastern White Pine County mule deer herds.

MULE DEER

Units 114 – 115, Snake Range: Southeastern White Pine County

Report by: Curt Baughman

Seasons, Hunt Quotas and Harvest Results

The total 2004 harvest was 209 deer including 175 bucks and 34 antlerless deer. Hunter success was above average for all hunts. Significant fall storms such as those experienced in 2004 tend to displace deer from higher elevation National Park Lands, which increases their availability to hunters. For specific hunting season results, please refer to the Deer Harvest Tables in the Appendix Section.

Survey Data

No postseason composition surveys have been conducted since 2000. The 2000 postseason helicopter deer survey was conducted in mid-January 2001 in conjunction with the winter elk survey. Data were obtained from both units. The 2000 postseason sample of 852 deer was classified as 176 bucks, 466 does, and 210 fawns for ratios of 38 bucks/100 does/45 fawns.

The spring 2005 helicopter sample of 523 deer (Unit 115 only) was classified as 370 adults and 109 fawns. The resulting ratio of 28 fawns/100 does was significantly lower than the recruitment of 39 fawns/100 does in 2004.

Habitat

Until summer moisture brought short-term improvements in 2004, habitat conditions had not improved appreciably from the cumulative effects of long-term drought. Precipitation levels in the Ely area have averaged 80% over the past 6 years. Except for the higher recruitment that was observed in 2004, fawn production and recruitment have been below average over the same period. Forage plant quality and

water distribution have declined, effectively reducing available habitat for mule deer. The recent winter brought the highest precipitation levels in decades. This should result in further improvements to water distribution and vegetative conditions in 2005. The health and condition of mule deer should likewise improve.

Population Status and Trend

With the exception of 2004, recruitment rates observed in recent years were below that needed to maintain the population (Figure 1). The recruitment observed in 2005 was well below average. The past winter should not have been hard on deer in this unit group. It appears that 2004 production may have been adversely affected by harsh winter conditions during the preceding winter as well as drought conditions during the late spring and summer. Population modeling indicates a slight but continued decline. Fawn production and recruitment over the next year could reach average or better levels unless severe environmental conditions return in the short term. Good potential exists for stabilization or expansion of the population.

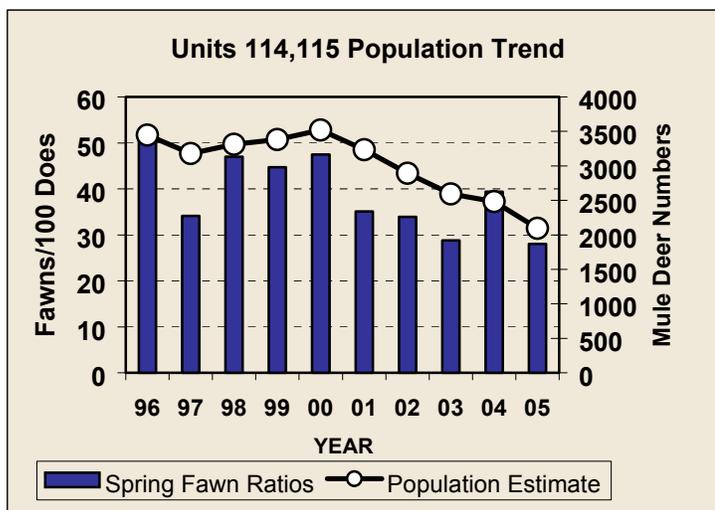


Figure 1. Observed fawn ratios and population trend for the Snake Range mule deer herds.

MULE DEER

Unit 121, North Egan, Cherry Creek Ranges: White Pine and Elko Counties

Report by: Sid Eaton

Seasons, Tag Quotas and Harvest Results

The combined resident and nonresident general season buck tag quota increased from 82 tags in 2003 to 161 in 2004. Hunter success was exceptionally high at 72% for resident rifle and 70% for the combined rifle hunt. Resident hunters harvested 41% 4-points while nonresidents took 71% 4-points.

The total reported 2004-buck harvest was 153 bucks, considerably higher than recent years. For more specific hunting season results, please refer to the Deer Harvest Tables in the Appendix Section.

Survey Data

Post-season composition surveys were conducted in this management area for the first time since 2000. The fall 2004 helicopter sample resulted in the classification of 958 deer with 151 bucks, 561 does and 246 fawns for ratios of 27/100/44.

The spring 2005 ground sample of 111 deer revealed a ratio of 28 fawns per 100 adults. The spring 2004 helicopter sample was classified as 841 adults and 237 fawns, also with a ratio of 28. The observed ratio of 28 fawns/100 adults recruited in 2004 and 2005 was the below long-term averages. Recruitment has averaged 33 fawns/100 adults for the past ten years (1994-2003).

Weather and Habitat

Precipitation levels have been below average for this unit since 1998. Habitat conditions have deteriorated following improvements during the wetter years of 1997-98. Located at the southern end of the unit, Ely has averaged 75% of its normal precipitation over the previous four years. Only 47% of

average moisture fell during the 2002 calendar year. The unit received more precipitation this year. Habitat conditions will improve with above-average spring and summer moisture. Fawn production may see an upward trend in 2005.

Population Status and Trend

Above average recruitment resulted in population expansion in 1999 and 2000 (See Figure 1). The low recruitment observed since 2002 indicates a reversal of this trend. Even though the past winter was above normal, the severity of the extended drought resulted in below average summer habitat conditions and resulted in lower production and survival of fawns. Both the base population and buck ratio appear healthy. Computer modeling indicates this population to be stable for this unit. If recruitment is moderate or better in 2005, Management Area 12 should begin to rebound.

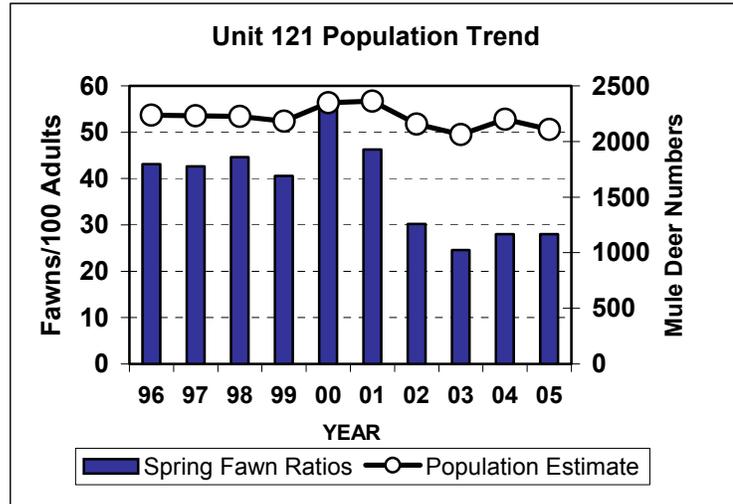


Figure 1. Cherry Creek and North Egan Ranges mule deer population trends.

MULE DEER

Units 131 - 134: Southern White Pine, Eastern Nye and Western Lincoln Counties

Report by: Mike Podborny

Seasons, Hunt Quotas and Harvest Results

The resident general season tag quota was 148 tags in 2004 compared to 152 in 2003. There were 140 bucks and 5 does harvested for 145 total deer compared to 134 deer in 2003. For complete hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

A helicopter post-season herd composition survey was conducted in December 2004. There were 113 bucks, 236 does and 120 fawns for a total sample of 469 deer classified. The post-season age and sex ratios were 48 bucks/100 does/51 fawns. Survey conditions were excellent, the sample was the largest since 1992 and the buck ratio was the highest recorded since helicopter surveys started in 1976. The previous fall survey was conducted in 2000 and resulted in a ratio of 30 bucks/100 does/68 fawns from a sample of 340 deer. The spring survey was conducted from the ground in March 2005. There were 353 deer classified as 275 adults and 78 young. The ratio was 28 fawns/100 adults. The winter fawn loss as measured from the post-season survey to spring survey was 17%. The spring 2004-fawn ratio was 34 fawns/100 adults.

Habitat

The extensive Pinion/juniper forest in this area is continually encroaching or taking over brush zones that support mule deer. The quality and quantity of mid-elevation summer ranges are slowly being reduced by P/J encroachment, lowering the carrying capacity of the range for mule deer. Although this long term deteriorating condition also affects winter range, it is believed the effect on summer range has a greater impact to the deer herd than loss of winter range. The drought persisted the first half of 2005 reducing available water, limiting new leader growth on browse species and reducing forbs and other highly nutritious plants deer utilize. These poor range conditions not only affect deer health but may also increase their susceptibility to predation.

Population Status and Trend

The current range conditions that have existed since 2001 have resulted in a stable population. The spring recruitment in 2005 was 42 fawns/100 does similar to the 44 fawns/100 does in 2004. The computer modeled population estimate was stable for 2005 until it was adjusted higher to account for the very high buck ratio (Figure1). The high percentage of bucks in the population is a result of very conservative hunting quotas for several years. This deer herd is slightly above the previous 10-year-average (1995-2004) but remains at approximately half of the average population level achieved in the 1980's.

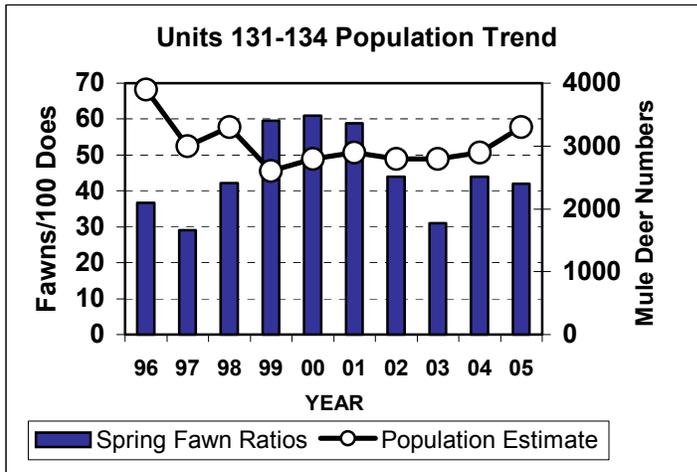


Figure 1. Observed fawn ratios and population trend for the Unit Group 131-134 mule deer herds.

MULE DEER

Units 141 - 145: Eureka and Eastern White Pine Counties

Report by: Mike Podborny

Seasons, Hunt Quotas and Harvest Results

There were 482 resident rifle tags in 2004 compared to 560 in 2003. There were 318 bucks and 55 does harvested for 373 total deer compared to 438 deer in 2003. Resident hunting success during the any legal weapon season declined for the fourth consecutive year to 38%. For complete hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

There was no post-season herd composition survey conducted. The previous fall survey was conducted in 2003 and resulted in a ratio of 24 bucks/100 does/51 fawns from a sample of 1,540 deer. Spring helicopter surveys conducted in March 2005 resulted in 942 deer classified as 797 adults and 145 fawns for a fawn ratio of 18 fawns/100 adults, the lowest spring recruitment ever measured in this unit group (Figure 1). The spring fawn ratio was 30 fawns/100 adults last year from a sample of 1,520 deer. The 2005 spring survey was conducted in one day with poor survey conditions resulting in the lowered sample. The previous 5-year-average (2000-2004) ratio was 29 fawns/100 adults

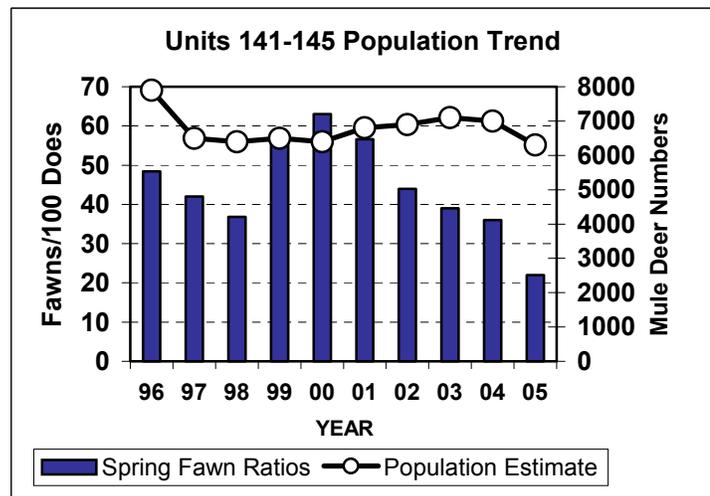


Figure 1. Observed fawn ratios and population trend for Eureka and Eastern White Pine County mule deer herds.

Habitat

There were no major wildfires in 2004 or 2005. There were large wildfires in 1999 and 2001 that burned and converted extensive brush zones into monocultures of cheatgrass and other annual weeds reducing the value of these areas for deer and other wildlife. The cumulative effect of these fires has been the reduced capacity of the range to support deer. The post-fire seeding effort to restore the most critical portions of these fires has resulted in only partial success due to the lack of precipitation since the fires occurred.

Population Status and Trend

Spring recruitment rates in the 141 –145 unit group declined for the fifth consecutive year in 2005 to an all time low of 22 fawns/100 does. The fifth year of drought conditions that existed until mid 2005 stressed browse species limiting new leader growth, reducing forb production and other highly nutritious plants deer need. Water available to deer was also limited in some areas. These conditions resulted in deer being in less than optimum body condition and when concentrated around limited water sources may have increased their susceptibility to predation and disease. These factors are likely the cause for low fall fawn ratios experienced for several years and the low spring recruitment. The population has been estimated to be stable to slightly declining for several years. In 2005 the estimated deer population declined again compared to 2004 (Figure 1). The overall status of this deer herd can be described as a short-term decline with the current population level at approximately 10% below the previous 10-year average (1995-2004).

MULE DEER

Units 151, 152, 154, 155: Lander and Western Eureka Counties

Reported by: Larry Teske

For hunting seasons results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Fall deer surveys were not performed this year. Spring surveys were conducted 8 and 9 March 2005. Survey conditions were good with snow on north slopes. South slopes, where most of the deer were found, were bare up to 7,000 feet. A sample of 871 deer was obtained including 669 adults and 202 fawns. The resulting age ratio computed to 30 fawns/100 adults. This was lower than the 32 fawns/100 adults in the spring 2004 and much lower than the previous 10-year average of 41 fawns/100 adults.

Habitat

Area 15 experienced a severe drought in 2002, 2003 and through most of 2004. Livestock and feral horse use on available forage was intense. During this period extremely poor range conditions persisted. The low fawn ratios experienced the last three years (between 29 and 32 compared to the previous 10-year average of 41) was most likely a result of the drought exacerbating the negative effects of grazing and other environmental pressures on range conditions.

Population Status and Trend

The Area 15 adult deer population survived the winter in poor to fair condition as evidenced by the large spring surveys still carrying their antlers. Although no actual numbers were recorded for bucks, observers all agreed that at least 20 bucks per hundred does was observed, which is unusual for this time of year. Most of these bucks still had both antlers and were represented by all age classes.

This is the third year that fawn recruitment to the population was low due to poor survival during the drought. The Area 15 deer herd is expected to remain at about the same level unless above average

precipitation is realized that improves fawn production and recruitment. The population will likely decline if drought conditions continue.

MULE DEER

Units 161 - 164: North-Central Nye and Southern Lander and Eureka Counties

Report by: Tom Donham

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

During fall composition flights, conducted in mid-December 2004, a total of 435 deer was classified. The sample included 69 bucks, 217 does, and 149 fawns for observed ratios of 32 bucks/100 does/69 fawns. Spring composition flights were conducted in March 2005. A total of 1,420 deer was classified consisting of 1,128 adults and 292 fawns for a ratio of 26 fawns/100 adults. The 2005 spring sample represents the largest since 1992 when a total of 1,549 deer was observed.

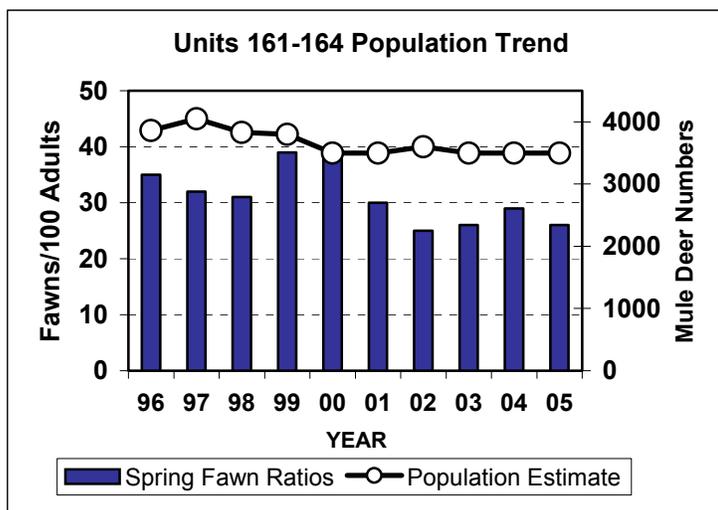


Figure 1. Observed fawn ratios and population trend of the Toquima, Monitor, and Hot Creek Range mule deer herds.

Population Status and Trend

Due to below average production/recruitment levels most years since the mid to late 1990's, the Area 16 herd has remained largely static (Figure 1). Fortunately, production has at least remained at maintenance levels for some time. Recent improvements in climatic conditions may result in a shot in the arm for this herd if conditions remain favorable. Although post-season fawn ratios were encouraging, spring survey results indicate recruitment remains at maintenance levels. The small sample size obtained during post-season survey may have resulted in a somewhat inflated observed fawn ratio. Also, drought conditions experienced over the past several years may be impacting body size and condition of fawns entering winter, and causing a higher than normal fawn loss in even average winters. Recruitment rates observed in 2005 will likely allow the herd to remain stable at present numbers in the short-term, but rates will have to improve in the coming years to see any significant increases in the herd. The population model for Area 16 predicts a pre-hunt population estimate of approximately 3,500 animals.

MULE DEER

Units 171 - 173: Northwestern Nye and Southern Lander Counties

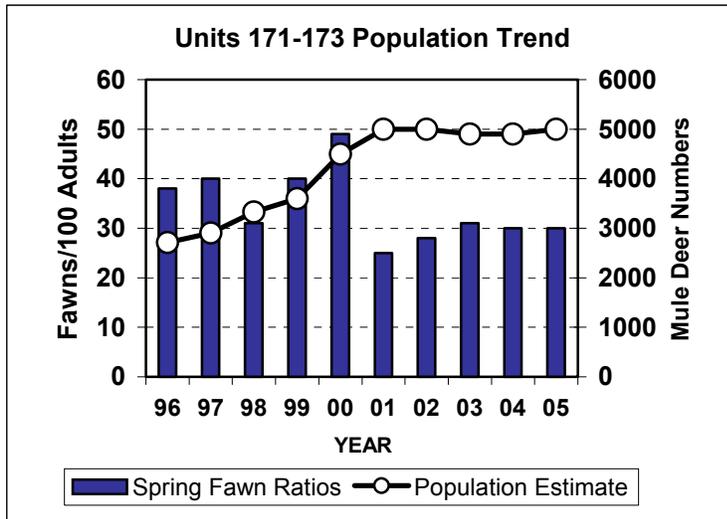
Report by: Tom Donham

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

No fall composition surveys were conducted during the reporting period. Spring composition flights were conducted in March 2005. A total of 2,522 mule deer was classified during the survey. The sample yielded an observed ratio of 30 fawns/100 adults. The 2005 sample represents the largest sample obtained in Area 17 since 1985. In 2001 a total of over 2,100 deer was observed. The large 2005 sample size is related to very favorable survey conditions and does not necessarily indicate any significant increase in overall deer numbers. Fall surveys have not been conducted in Area 17 since

2000; therefore, fawn/100 adult ratios are illustrated in Figure 1. Since harvest levels have not fluctuated significantly in the past several years, buck ratios have remained relatively stable so adult/fawn ratios can provide a reasonable measure of recruitment.



Population Status and Trend

Production and recruitment levels have remained below average for the Area 17 mule deer herd for the past 5 years (Figure 1). This is most likely due to drought conditions and resultant impacts not only to animal body condition, but also to wildlife habitat as a whole. Rates have remained near maintenance levels resulting in a static trend for most central Nevada deer herds. Recruitment rates observed in 2005 indicate the herd will likely remain stable in at least the short-term. Improved climatic conditions experienced during the later part of 2004 and into early 2005 may have positive influences on the herd, but conditions must remain favorable for

Figure 1. Observed fawn ratios and population trend of the

the herd to show any significant increases in the near future. The population model for Unit Group 171-173 predicts a pre-hunt adult deer population of approximately 5,000 animals.

MULE DEER

Units 181 - 184: Churchill, Southern Pershing and Western Lander Counties

Report by: Jason Salisbury

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Random ground surveys in March 2005 were conducted in Management Area 18 and resulted in the classification of 72 animals (22 fawns and 50 adults), which yielded a spring fawn ratio of 44 fawns/100 adults.

Population Status and Trend

The Area 18 deer herd remains at low levels. The obtained sample of 72 animals with a fawn ratio of 44 fawns should allow the population to remain stable at present numbers in the short term. This population will likely decline if drought conditions continue.

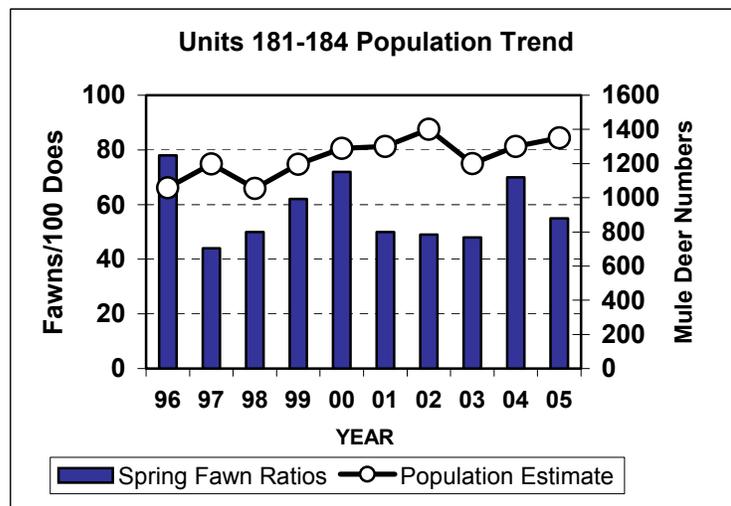


Figure 1. Observed fawn ratios and population trend of the Unit Group 181 – 184 mule deer herd.

MULE DEER**Unit 192, Carson River Interstate Mule Deer Herd: Douglas County****Report by: Carl Lackey****For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section****Survey Data**

NDOW conducted a fall composition survey flight during the second week of December 2004. The flight resulted in the classification of 91 deer; 52 does, 25 fawns and 14 bucks. Spring composition was determined after California biologists flew a survey in March 2005. The product of their survey was 262 adults and 78 fawns, generating a fawn ratio of 30 fawns/100 adults.

Population Estimates and Trend

The winter of 2004/2005 produced very heavy snowfalls, at times several feet deep at valley level. As a result the deer herd was concentrated at lower elevations. The loss of critical deer winter range along the Sierra Nevada foothills was pronounced because of this, as deer were seen regularly in housing developments and city streets, most having to spend the winter foraging in residential backyards. Spot surveys from the ground during January and February offered little hope for the herd, with many individuals appearing stressed and malnourished. Despite this the winter fawn loss was only 30.

The 2005 pre-hunt adult estimate for the Carson River Interstate deer herd is 900 animals, down slightly from 2004. Fawn recruitment in Unit 192 has remained mostly at maintenance levels over the last couple years, but the overall long-term population trend is downward. Deer populations fluctuate year to year, but the descending trend is expected to continue in direct proportion to habitat loss.

This deer herd is an interstate herd, which mostly summers in California and winters in Nevada. Based on past research, approximately 30 percent of this herd winters in Nevada; therefore Nevada's allocation for harvest is based on only 30 percent of the 2004 estimate.

MULE DEER**Unit 194, 196, Carson Range and Peavine Mountain Interstate Herd: Washoe and Carson City Counties****Report by: Carl Lackey****For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section****Survey Data**

During NDOW's fall composition survey 421 deer were classified with a total 218 does, 159 fawns and 44 bucks. Spring survey flights conducted by California resulted in the classification of 429 adult deer and 200 fawns, producing a fawn ratio of 47 fawns/100 adults.

Population Estimates and Trend

Winter fawn loss for Units 194-196 was estimated at 24%. Much higher losses could have occurred given the extreme amounts of snow that fell in this unit. The loss of critical deer winter range along the Sierra Nevada foothills was pronounced because of this, as deer were seen regularly in downtown Carson City and Reno, most having to spend the winter foraging in residential backyards. Spot surveys from the ground during January and February offered little hope for the herd, with many individuals appearing stressed and malnourished. Deer were constantly observed near and on some of the major roads in the area, including Interstate 80, in an attempt to migrate to traditional winter range and to seek areas where snow was removed simply to survive. Nevada Department of Transportation reported more than 60 deer hit by vehicles in the two-week period following the storms in early January in the Mogul/Verdi area.

The 2005 pre-hunt adult estimate of 1,100 for the Loyalton-Truckee Interstate deer herd is comparable to last year's estimate, although the overall long-term trend is spiraling downward. Other parameters such as harvest, post-hunt buck ratios and spring fawn numbers all indicate static population levels in the short term. This is an interstate herd along with a small portion of the total that are resident deer on the Carson Range and on Peavine Mountain. Of the deer that summer in California, approximately 50% of them migrate to winter range in Nevada.

Continuing urban encroachment, severed migration corridors, and the frequency of wildfires will prevent this herd from returning to historic population levels. An 8,000-acre fire burned west of Carson City during the summer of 2004. Much of what was burned was considered critical deer winter range.

MULE DEER

Unit 195, Virginia Range: Storey County

Report by: Carl Lackey

For hunting season results, please Refer to the Mule Deer Harvest Tables in the Appendix Section

Survey Data

No formal post-season surveys were not completed for this unit, although a brief fly-over resulted in the classification of 11 deer with a composition of 8 does, 2 fawns and 1 buck. Spring surveys were not completed.

Population Estimates and Trend

A number of deer in this unit are year-round residents, along the Carson and Truckee Rivers, while some animals continue a migratory pattern. Highway 395 and continuing developments along the Carson front bisect key migration routes. These factors have contributed in major reductions to the migrations that once occurred in this area. Currently this population is thought to be stable, although at lower levels. This is supported mainly by harvest statistics.

MULE DEER

Units 201, 202, 204 - 206, Walker/Mono Interstate Deer Herd: Douglas, Lyon and Mineral Counties

Report by: Jason Salisbury

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section

Survey Data

NDOW conducted fall survey flights on 5 January 2005 and resulted in the classification of 417 deer. The sample consisted of 43 bucks, 256 does and 118 fawns for a ratio of 17 bucks/100 does/46 fawns. Yearling bucks comprised 35% of the bucks classified. Heavy fog along the California border limited survey efforts on the California side. A seasonal aide employed by the California Fish and Game observed a buck to doe ratio of 35 bucks/100does on the California side. Spring survey flights were conducted on 25 March 2005 and produced a sample of 2,485 deer. Of these, 2,158 animals were classified as 1,613 adults and 545 fawns for a computed fawn ratio of 34 fawns/100 adults. This represents a 36% increase to the five-year average of 25/100 adults.

Population Status and Trend

A fawn recruitment rate of 34 fawns/100 adults appears adequate to maintain or increase this herd. The Area 20 herd appeared to survive the past winter fairly well. Habitat in the Wellington Hills Unit 201 is starting to be negatively impacted by increased urbanization. Presently, corridors exist to allow mule deer to migrate through to the winter range. Range improvements in the Wellington Hills Unit 201 and in the Excelsior Mountains Unit 206 are needed to address problems associated with mule deer winter range. A single population estimate is calculated for the Walker/Mono Interstate Herd including resident deer in

eastern Mineral County. Nevada's apportionment is 30% of the harvest objective based upon the percentage of the herd that occupies winter range here and the amount of time the animals remain in Nevada. Harvest objectives are then distributed between Unit groups 201 and 204 and Unit groups 202, 205 and 206. This is a 40% and 60% allocation, respectively. Deer in Unit 205 are actually yearlong residents, but the harvest is not significant enough to warrant a separate management approach.

MULE DEER

Unit 203, Mason and Smith Valleys: Lyon County

Report by: Jason Salisbury

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section

Survey

Fall mule deer composition surveys are usually conducted in December. However, due to persistent valley fog and winter storms surveys were postponed until 1 February 2005. This survey resulted in a total of 83 mule deer that were classified as 28 bucks/100 does/52 fawns. Areas surveyed were Mason Valley Wildlife Management Area and the surrounding agricultural fields.

Population Status and Trend

The mule deer population in Mason Valley and Smith Valley is stable at this time. The increasing trend of converting brush land into garlic and onion production will negatively impact mule deer in the unit over the long term.

MULE DEER

Units 211, 212: Esmeralda County

Report by: Tom Donham

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Presently, no surveys are conducted in Area 21. Past survey efforts have not resulted in sufficient sample sizes for use in monitoring population dynamics.

Population Status and Trend

Growth of central Nevada deer populations has been impacted by drought conditions, prevalent most years since early 1985. These types of conditions can result in poor body condition of adult animals, resulting in under weight fawns and lowered recruitment rates. Most central Nevada deer herds have experienced maintenance level production and recruitment rates for several years resulting in relatively static numbers. Area 21 appears to be experiencing these same trends. Based upon surveys conducted in nearby areas, the Area 21 deer herd will likely remain stable at current levels in the short-term as will most central Nevada herds. Improved climatic conditions during late 2004 and early 2005 may bode well, but conditions will need to remain favorable for some time to see any significant improvements. It is doubtful that NDOW will ever have adequate biological data with which to accurately assess population status and trend in Area 21. Presently, the population estimate for this unit group is approximately 300 animals.

MULE DEER

Units 221 - 223: Northern Lincoln and Southern White Pine Counties

Report by: Mike Scott

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Post-season aerial surveys were conducted during December 2004, and resulted in the classification of 783 deer, compared to 704 classified in 2003. The sample consisted of 136 bucks, 441 does and 206 fawns for a ratio of 31 bucks/100 does/47 fawns. Yearling bucks comprised 37% of the bucks classified.

Spring surveys were conducted during March 2005, and resulted in the classification of 2,002 deer consisting of 1,571 adults and 431 fawns, which results in a ratio of 27 fawns/100 adults.

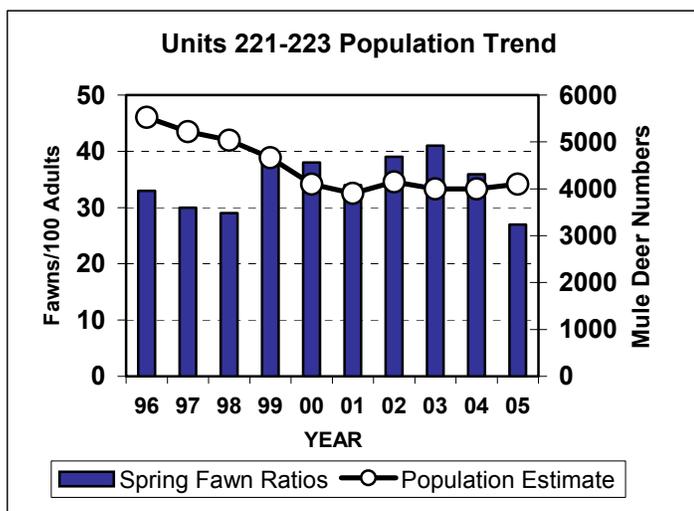


Figure 1. Observed fawn ratios and population trend of the Egan and South Schell Creek Range mule deer herds.

Habitat

The President of the United States recently signed the Lincoln County Land Act of 2004, into law. This act established fourteen wilderness areas in Lincoln County, consisting of over 750,000 acres. In Area 22, the Far South Egans Wilderness and the Big Rocks Wilderness were designated. Two other areas are still under consideration in White Pine County. The act also authorizes Off-Highway Vehicle (OHV) trails, utility corridors, land sales, and Open Space Parks. This act may eventually result in water being transferred from Lincoln County to southern Lincoln and Clark Counties. In addition, the federal government has proposed a land withdrawal across Lincoln County for the Department of Energy’s Rail Line Corridor. Furthermore, private companies have targeted areas in Lincoln County for placement of wind-generated power structures. These changes, combined with continued pinyon-juniper expansion into decadent stands of sagebrush, and high feral horse numbers, will likely result in continued habitat degradation throughout Lincoln County.

Population Status and Trend

The computer-generated population estimate is 4,100 animals, slightly higher than the 2004 estimate and below the 10-year average (Figure 1).

MULE DEER

Unit 231, Wilson Creek Range: Northeastern Lincoln County
Report by: Mike Scott

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Post-season aerial surveys were conducted during December 2004, and resulted in the classification of 840 deer. The sample consisted of 124 bucks, 462 does, and 254 fawns for a ratio of 27 bucks/100 does/55 fawns. Yearling bucks comprised 36% of the bucks classified. The previous sample, obtained during December 2003, resulted in the classification of 947 deer, with a ratio of 27 bucks/100 does/60 fawns.

Spring aerial surveys were conducted during March 2005, and resulted in the classification of 884 deer consisting of 658 adults and 226 fawns, which results in a ratio of 34 fawns/100 adults.

Habitat

The President of the United States recently signed the Lincoln County Land Act of 2004, into law. This act established fourteen wilderness areas in Lincoln County, consisting of over 750,000 acres. Within Area 23, the White Rock Range Wilderness, the Parsnip Peak Wilderness, and the Fortification Range Wilderness were all designated. The act also authorizes Off-Highway Vehicle (OHV) trails, utility corridors, land sales, and Open Space Parks. This act may eventually result in water being transferred from Lincoln County to southern Lincoln and Clark Counties. In addition, the federal government has proposed a land withdrawal across Lincoln County for the Department of Energy Rail Line Corridor. Furthermore, private companies have targeted areas in Lincoln County for placement of wind-generated power structures. These changes, combined with continued pinyon-juniper expansion into decadent stands of sagebrush, and high feral horse numbers, will likely result in continued habitat degradation throughout Lincoln County.

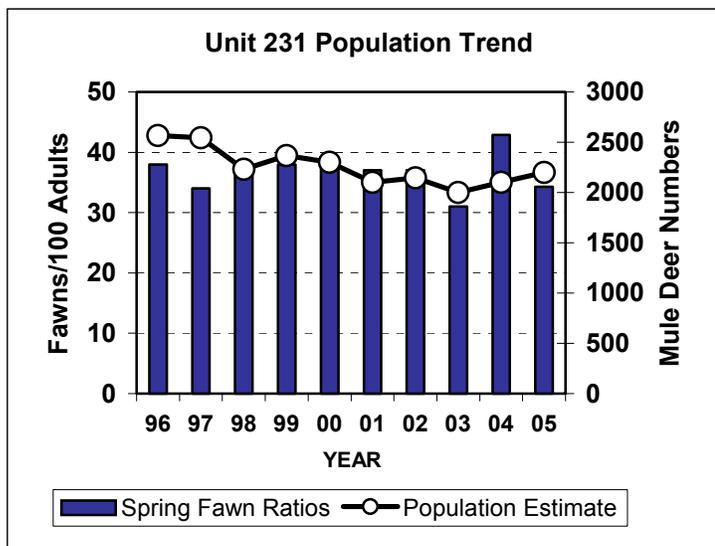


Figure 1. Observed fawn ratios and population trend of the Wilson Creek Range mule deer herd.

Population Estimates and Trend

The computer-generated population estimate is 2,200 animals, compared to 2,100 in 2004 and over 2,500 in the mid 1990's (Figure 1).

MULE DEER

Units 241 – 245, Clover, Delamar, and Meadow Valley Mountain Ranges: Lincoln County

Report by: Mike Scott

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Late spring aerial surveys produced a very small sample as deer had migrated off the winter ranges and back into Utah by the time a survey could be completed. The survey resulted in the classification of only 40 deer including 29 adults and 11 fawns, which results in a ratio of 38 fawns/100 adults. The previous survey was conducted during March 2004, and resulted in the classification of 225 deer with a ratio of 37 fawns/ 100 adults.

Habitat

The President of the United States recently signed the Lincoln County Land Act of 2004, into law. This act established fourteen wilderness areas in Lincoln County, consisting of over 750,000 acres. Within Area 24, The Meadow Valley Wilderness, the Delamar Mountains Wilderness, the Clover Mountains Wilderness, the South Pahroc Range Wilderness, and the Tunnel Spring Wilderness were designated. The act also authorizes Off-Highway Vehicle (OHV) trails, utility corridors, land sales, and Open Space Parks. This act may eventually result in water being transferred from Lincoln County to southern Lincoln

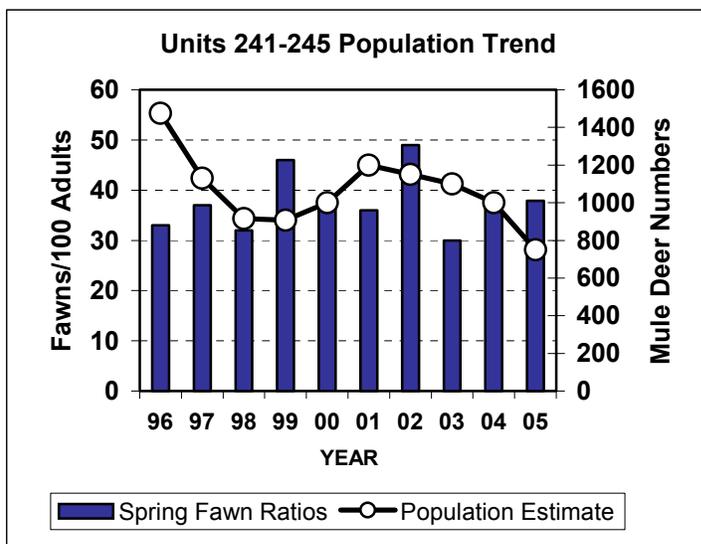


Figure 1. Observed fawn ratios and population trend of South central Lincoln County mule deer herds.

and Clark Counties. In addition, the federal government has proposed a land withdrawal across Lincoln County for the Department of Energy Rail Line Corridor. These changes, combined with continued pinyon-juniper expansion into decadent stands of sagebrush, and high feral horse numbers, will likely result in continued habitat degradation throughout Lincoln County.

Population Estimates and Trend

The computer-generated population estimate is 750 animals, compared to 1,000 in 2004 and approximately 1,500 a decade ago (Figure 1).

MULE DEER

Units 251 - 253: South Central Nye County

Report by: Tom Donham

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

Presently, neither post-season nor spring surveys are conducted in these units. The last surveys conducted in the area occurred in 1998 and failed to yield a sufficient sample for analysis. Consequently, meaningful data were not collected to model population dynamics.

Population Status and Trend

Reduced production and recruitment rates, caused predominantly by drought conditions, have resulted in a static to decreasing trend in most central Nevada deer populations for several years. Although conditions have improved recently, this trend will need to continue in order for any noticeable improvements to occur. Based on surveys conducted in surrounding areas, the Area 25 mule deer herd likely experienced only maintenance level recruitment in 2004-2005 and is considered to be stable at current levels. The population estimate for this unit group, based on professional judgment and harvest data, is approximately 350 animals.

MULE DEER

Units 261 - 268: Clark and Southern Nye Counties

Report by: Patrick J. Cummings

For hunting season results, please refer to the 'Species' Harvest Tables in the Appendix Section.

Survey Data

Mule deer habitat in Area 26 is marginal; consequently, deer densities are low and below levels that allow for meaningful data from periodic aerial surveys. The lack of composition data precludes development of a useful model that would demonstrate herd population dynamics and generate population estimates.

Population Status and Trend

The mule deer population in Area 26 is estimated at 350, and likely experienced a decline as result of severe drought conditions in three successive years (2000-2002). During this period, mule deer coped with reduced availability of quality forage, and subsisted largely on cured and woody vegetation low in digestibility and nutritive value. Thus, the consequences of mule deer in Area 26 surviving on a lower nutritional plane were reduced reproduction and recruitment.

As of this writing in March 2005, environmental conditions are favorable due to above average precipitation receipts since February 2003. Based on improved environmental conditions, 2005 should be the second consecutive year of normal to above-normal fawn production and survival.

MULE DEER

Units 271, 272: Southern Lincoln and Northeastern Clark Counties

Report by: Mike Scott

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section.

Survey Data

No surveys were conducted in Units 271 or 272 during the reporting period. Mule deer densities are low enough that standard surveys do not result in enough data for analysis. The harvest strategy is based on hunter demand and success.

Habitat

Water developments installed with the assistance of sportsmens' groups, coupled with a few natural springs, provide limited suitable habitat for mule deer. A fire of some 8,000 acres burned in the Virgin Mountains, which will likely displace mule deer for some time.

MULE DEER

Unit 291, Pinenut Range: Carson City, Douglas and Lyon Counties

Report by: Carl Lackey

For hunting season results, please refer to the Mule Deer Harvest Tables in the Appendix Section

Survey Data

No formal surveys were conducted in this unit during the fall of 2004 or the spring of 2005. General observations and anecdotal reports indicate that this herd is stable over the short-term but has declined significantly over the long-term.

Population Estimates and Trend

The 2005 population estimate for this unit is the same as last year. This population is believed to be stable, but has the potential to increase under more ideal habitat conditions. Many of the deer, particularly in the northern part of the management area, are resident deer. The population for area 29 is well below the historic levels recorded for the Pine Nut Mountains. Expansion of the pinion forest over the past few decades, livestock grazing practices, increased human recreational activity, increased urbanization on the perimeter with corresponding traffic, and increased numbers of feral horses have all contributed to the decline of mule deer in Unit 291. Habitat enhancements in the form of chaining or prescribed burns are recommended in Unit 291.

PRONGHORN ANTELOPE

PRONGHORN ANTELOPE

Units 011 - 015, 021, 022: Western Humboldt, and Washoe Counties

Report by: Chris Hampson

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Pronghorn composition surveys were conducted during the third week of August and resulted in the classification of 1,707 pronghorn (Table 1). This was a departure from traditional post-season surveys that occur in early September. This year's survey sample was 37% higher than the 2003 sample of 1,251 pronghorn and 7% above the five-year-average of 1,591 animals. The increase in the number of animals observed can be attributed to the earlier survey period and to the above-average recruitment experienced over the last few years. Pronghorn are generally less scattered and easier to locate prior to the pronghorn rifle season.

Table 1. 2004 pre-season pronghorn composition for Washoe County

Unit	Bucks	Does	Fawns	Total	Bucks/100 Does/Fawns
011	122	299	188	609	41/100/63
012-014	144	408	210	762	35/100/52
015	36	119	56	211	30/100/47
022	36	62	27	125	58/100/44
2004 Totals	338	888	481	1,707	38/100/54
2003 Totals*	268	662	321	1,251	41/100/49

* Surveys conducted post-season

The number of animals classified increased in units 011, 022 and unit group 012-014. The survey conducted on the Sheldon located similar numbers of animals when compared with the previous year. The only hunt unit to show a decrease in the sample size was unit 015. The smaller sample obtained in this unit can be attributed to reduced survey effort in the area.

As expected, buck ratios were observed to be higher during the pre-season surveys than the post-season ratios observed in 2003. The exception was unit group 012-014 where much lower buck ratios were observed during this past year's pre-season survey. The scattered distribution of bucks during the pre-season, as well as the smaller sample obtained during the 2003 post-season survey are thought to be the main reasons for the lower buck ratios observed in this unit group. Lower numbers of pronghorn are usually observed on post-season surveys in September due to the onset of the breeding season, hunting pressure from the recent rifle hunt and pronghorns diminishing dependence on water at that time of year.

The average combined fawn ratio for pronghorn in the Washoe County hunt units rose from 48 fawns per 100 does in 2003 to 54 fawns per 100 does this year. Recruitment in 2004 was up in all hunt units with the exception of unit 015, where fawn ratios remained stable at 47 fawns per 100 does. Pronghorn recruitment in Washoe County was 39% above the five-year-average of 38.7 fawns per 100 does.

Population Status and Trend

The strong recruitment levels observed this past year will allow the Washoe County pronghorn populations to experience herd growth in 2005. However the good recruitment was somewhat tempered by significant snowfall and cold temperatures. The winter conditions forced pronghorn to occupy lower elevation winter ranges throughout most of the winter. Snowfall amounts were higher in units 012 thru 015 and units 021 and 022. A strong inversion kept temperatures well below average and fog prevented

snow on the south facing slopes from melting. The above average snow accumulations and cold temperatures persisted for over a two-month period. Finally, the inversion was broken and warmer conditions prevailed. This allowed for snowmelt to occur on most winter ranges and helped pronghorn survive the winter. However, due to the severity of the winter in portions of Washoe County, a more conservative recruitment rate was used in developing the 2005 population estimate.

Pronghorn population levels in Washoe County continued to build during the mid 1980's and were at their highest levels during the late 1980's and early 90's. The lowest population levels in recent years occurred following the now infamous winter of 1992-93. The winter was so severe that pronghorn that normally winter in the southern portion of the Calico Range were forced out into the Black Rock Desert and even further south into Pershing County. Recruitment rates following the harsh winter continued to be below average and pronghorn populations remained at low levels over the next several years. Between 2000 and 2003, pronghorn herds in Washoe County experienced increasing trends due to above average recruitment and mild winters (Figure 1). Estimates show that Washoe County pronghorn herds are at moderate levels today when compared with recent high levels.

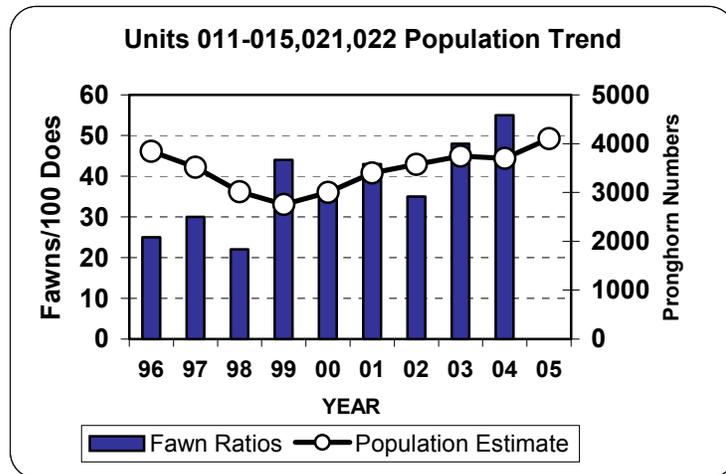


Figure 1. Observed fawn ratios and population trend of Washoe County pronghorn herds.

PRONGHORN ANTELOPE

Units 031, 032, 034, 035, 051: Humboldt County
 Report by: Ed Partee

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Aerial pronghorn surveys were conducted in mid August 2004 in Areas 3 and 5. A total of 915 animals was classified in these units providing a composition ratio of 49 bucks/100 does/50 fawns. This represents an increase from the 2003 survey of 779 animals. Overall fawn ratios have increased over the last few years (Figures 1 and 2). Buck ratios have climbed back up from last year's survey.

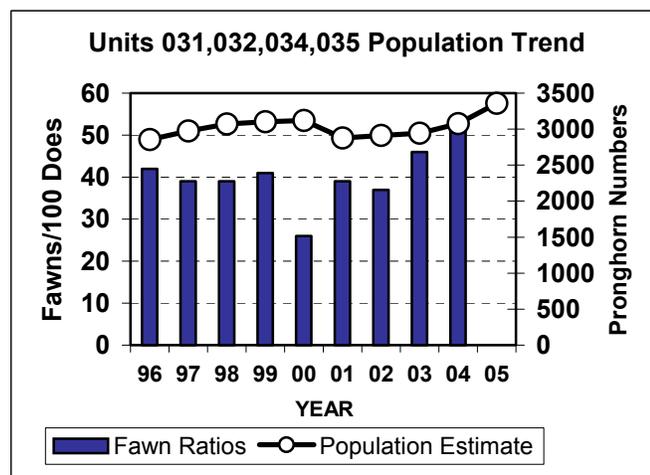


Figure 1. Observed fawn ratios and population trend of Western Humboldt County pronghorn herds.

Population Status and Trend

The estimated population for area 3, which includes units 031, 032, 034, and 035, is 3,358 animals. Unit 031 has seen an increase in fawn ratios over the last two years. For units 032, 034, and 035 there has been an increase in fawn ratios over the last five years. For area 5 unit 051 the population estimate is 750 animals. The fawn ratio for this unit went down by one from last year, however for the most part it has increased over the last five years. Combined, these two areas have seen an increase in the population over the last several years. Winters have been mild for the last several years resulting in

favorable conditions for the pronghorn. There has been virtually no winter mortality and fawn recruitment has increased.

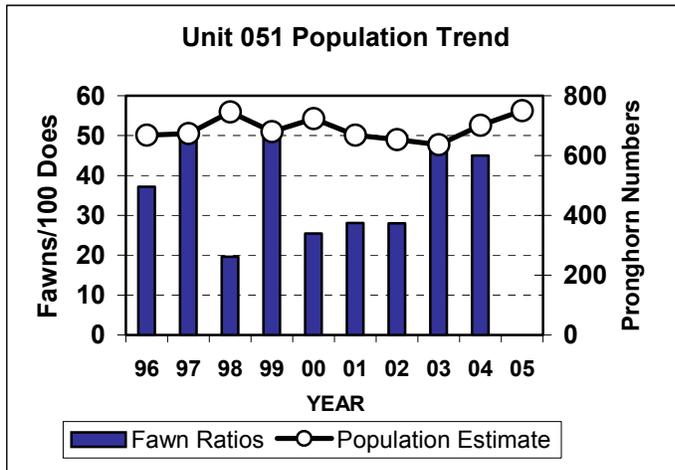


Figure 2. Observed fawn ratios and population trend of the Eastern Humboldt County pronghorn herd.

With many of the fires that have occurred in Humboldt County, the removal of much needed native sagebrush with a healthy understory of grasses and forbs have diminished habitat quality. Many of the areas that have had the brush removed have allowed pronghorn to move into those areas. However, without sufficient stands of sagebrush available to wintering animals for forage and cover, these populations could easily experience serious declines in the event of severe winters with large snow accumulations.

PRONGHORN ANTELOPE

Unit 033, Sheldon National Wildlife Refuge: Washoe and Humboldt Counties

Report by: Chris Hampson

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Pronghorn surveys this past year were conducted prior to the hunting season. Last year, the surveys were conducted in the more traditional post-season survey period in mid September. A total of 398 pronghorn was classified in 2004 with a computed ratio of 52 bucks/100 does/48 fawns. In 2003, 412 pronghorn were located and resulted in a composition ratio of 36 bucks/100 does/41 fawns.

Pronghorn fawn recruitment remains strong on the Sheldon with 48 fawns per 100 does observed on this year's survey. This equates to a 17% increase in the short-term but is near average for the herd over the last five-year period (Figure 1). Despite six consecutive years of drought, recruitment has averaged 48 fawns per 100 does between 2000 and 2004.

Observed buck ratios on the Sheldon continue to remain high as the preseason ratio of 52 bucks per 100 does indicates. Post-season buck ratios in 2003 were observed at 36 bucks per 100 does. The 2004 preseason buck ratio is almost identical to the 2002 preseason survey buck ratio of 53 bucks per 100 does. Continued conservatism with regard to pronghorn hunting on the Sheldon has maintained high buck ratios over the past several years.

Water availability was slightly improved in 2004 when compared with the extremely dry conditions experienced in 2003. Most shallow lakes, pit tanks and spring sources had at least a small amount of water available to pronghorn this year. However, vegetative conditions this past summer and fall

remained poor due to the sixth consecutive dry year. Many of the water sources that are important to pronghorn were completely dry in 2003. Improved precipitation totals this winter should help fill many of these important water sources and help to improve overall habitat conditions for pronghorn.

The Sheldon received less snowfall than many of the hunt units further to the south. The inversion that led to a two-week period of fog in most valley areas from Reno to Gerlach was not as severe on the Sheldon. With less snowfall and milder temperatures many south facing slopes were open for most of the winter. Winter survival for the Sheldon herd is expected to be high.

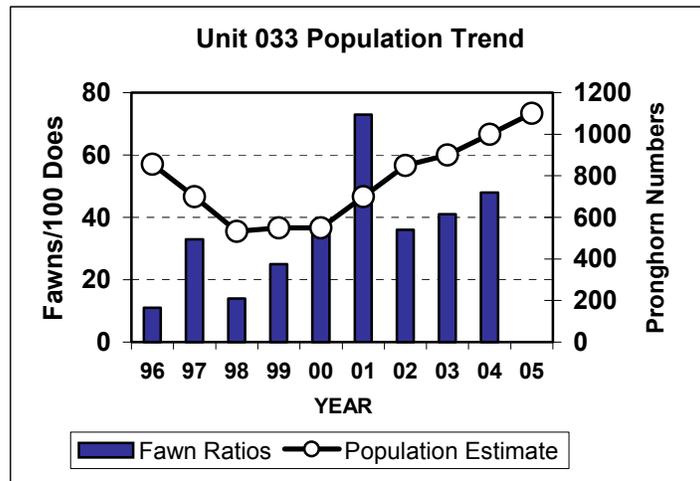


Figure 1. Observed fawn ratios and population trend for the Sheldon NWR pronghorn herd.

Population Estimate and Trend

Pronghorn numbers have steadily increased on the Sheldon since 2000 (Figure 1). This has occurred despite the reduction in vegetative quality caused by six consecutive years of drought. Although, this past winter was near normal for snowfall and total precipitation received, pronghorn survival was high. This will allow the Sheldon population to continue on an increasing trend. The population estimate for the Sheldon herd is now estimated at 1100 animals.

PRONGHORN ANTELOPE

Units 041, 042: Western Pershing and Southern Humboldt Counties

Report by: Kyle Neill

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Pronghorn composition surveys for Units 041 and 042 were conducted from the ground during the first week of October 2004. A record sample of 462 animals was attained. This represents an increase of almost 49% over the previous record sample in 2001 of 311 pronghorn. Pronghorn were scattered throughout the unit groups and were generally found in close proximity to water and in areas that had burned several years ago. Survey data is summarized in Table 1.

Table 1. Pronghorn Composition Survey Results for Units 041 and 042.

Year	Bucks	Does	Fawns	Total	Bucks/100 Does/Fawns
2003	66	161	75	302	41/100/47
2004	88	280	94	462	31/100/34
5-year average	66	170	70	306	39/100/41

The computed buck ratio for the 2004 sample was 31 bucks per 100 does. The 2004-buck ratio is the lowest observed ratio since 1997's ratio of 31 bucks per 100 does. The observed 2004-buck ratio is also approximately 21% below the 5-year average of 39 bucks per 100 does. Unit's 041 and 042-harvest objective of 30 bucks per 100 does may have finally be realized. However, hunter success rates for the resident rifle hunt remains the highest in the state for hunt units with over 25 rifle tags available.

The 2004 composition survey resulted in a fawn ratio of 34 fawns per 100 does. This is also a decrease from the 2003 ratio of 47 fawns per 100 does and a 17% decrease from the 5-year average of 41 fawns per 100 does. Figure 1. shows fawn ratios and population estimates for the herd over the last 10 years.

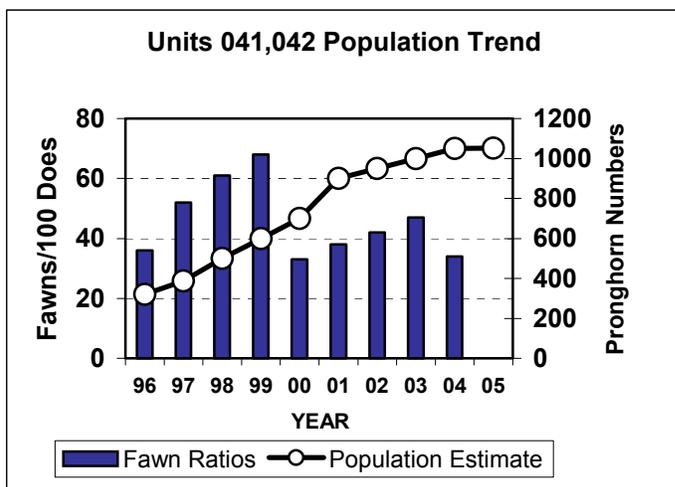


Figure 1. Observed fawn ratios and population trend of Western Pershing County pronghorn herds.

Increasing population trends in this herd have finally slowed after 10 years of steady growth. Future increases in this population will depend on water availability and proper forage condition.

Population Status and Trend

The western Pershing County herd's recruitment level was observed at 34 fawns per 100 does, which should maintain the herd's population. The herd also experienced one of the harshest winters in many years. Coupled with a maintenance level fawn ratio and rough winter conditions the herd's population has remained static at 1,051 animals (Figure 1).

Pronghorn have continued to expand their range in units 041 and 042. Future distribution will mainly be limited by available water sources. Burned areas are slowly recovering and are now providing pronghorn with forage.

PRONGHORN ANTELOPE

Units 061, 062, 064, 071, 073: North Central Elko County

Report by: Ken Gray

Tag Quotas and Harvest Results

Eighty-two tags were available for the rifle buck hunt in 2004. The 2004 tag quota represented a 5-tag (6 percent) increase from the 2003 quota. There were 20 resident doe tags available in 2004, which was equivalent to the 2003 quota. For specific 2004 hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

A ground survey was conducted within this unit group in September 2004. A sample of 885 pronghorn was classified as 193 bucks, 424 does, and 265 fawns. The sex and age ratios of the sample were 46 bucks/100 does/63 fawns (Table 1). The buck ratio was 7 bucks per 100 does higher than the previous 5-year average. The fawn ratio was 8 fawns above the previous 5-year average and in fact was the highest fawn ratio observed in the past 7 years.

Table 1. Observed buck ratios, fawn ratios and sample size for pronghorn in Units 061-073.

	2004	2003	1994-2003 Average
Bucks/100 does from fall surveys	46	44	38
Fawns/100 does from fall surveys	63	60	59
Sample size from fall surveys	885	659	518

Habitat

During the second week of January 2005 two feet of snow accumulated on the 061-073 antelope winter range. This heavy snow event forced approximately 1,100 antelope to gather in a small area east of Elko. Below freezing temperatures occurred at the low elevation winter ranges for seven weeks and deep snow levels persisted. However, warmer temperatures occurred at the higher elevations (above 6,000 feet), which resulted in significant snowmelt on the south slopes. As the south slopes melted at the high elevations, antelope immediately started moving to these open slopes. By 1 February 2005, over 90% of the herd was at the high elevations.

The sagebrush habitat at the low elevations is crucial for antelope survival during times of heavy snowfall. If the high elevations do not melt off, as was the case during the 1992-1993 winter, antelope must use the low elevations throughout the winter to survive. Unfortunately, these lower wintering areas are being urbanized at a steady rate. The Elko BLM sold 250 acres of some of the most crucial antelope winter habitat this past year despite objections by NDOW. Not only is there a direct loss of habitat when an area is developed, but often fences and other structures impede antelope movement. As observed during the past few winters, movement by these animals is a critical element to their winter survival.

During the winter of 2004-2005, Elko Bighorns Unlimited paid for a cat, which was used to plow snow from existing roads. These plowed roads enabled antelope to move, with less energy expenditures, to different feeding areas. The Nevada Department of Wildlife and the Elko BLM temporarily modified fences on the winter range. These modifications greatly facilitated antelope movement.

Observations from the past several winters show that fences can impede or even prohibit antelope movement, especially when snow is present. NDOW needs to aggressively work with the BLM, private landowners and sportsmen groups to identify crucial movement corridors and modify fences so that antelope can easily move through these areas, especially when deep snow exists.

Population Status and Trend

The observations of concentrated antelope this past winter show that this population has been significantly underestimated the past few years. During the winter of 2001-2002, the population estimate for this herd was reduced by 27% due to a harsh winter. In hindsight, this level of mortality did not occur, especially in light that the antelope are wintering at the upper elevations for at least part of the winter. The level of estimated mortality during the winter of 1992-1993 was likely over estimated by approximately 10%. Even though this may not seem significant, in the long-term it can result in several hundred more antelope in the population as the herd grows exponentially over several years. The 2003 and 2004 fawn crops were also well above average which helped contribute to the large population estimate. These high fawn ratios, relative to the state average, are a testament to the high quality of summer habitat associated with this unit's summer range. Maintaining the integrity of this unit's winter range is paramount if we are to sustain a viable antelope population north of Elko.

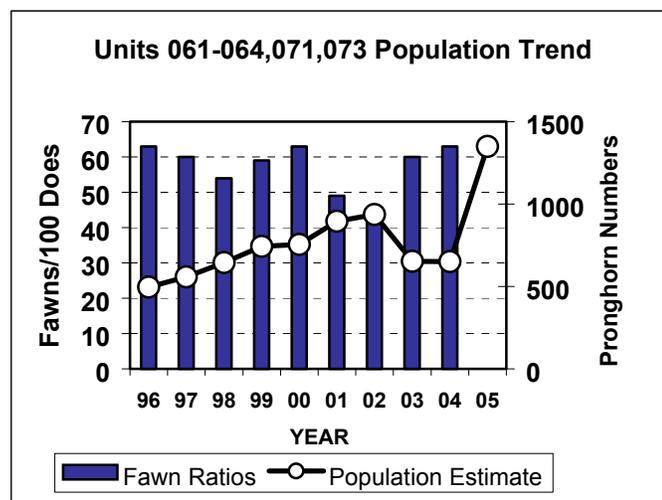


Figure 1. Observed fawn ratios and population trend of North Central Elko County pronghorn herds.

The revised population estimate, based on the fall and winter observations, is at approximately 1,300 animals. This is an increase from the 2004 published estimate of 100%. This increase in the population estimate will result in a significant increase in both the recommended buck and antlerless tag quotas.

PRONGHORN ANTELOPE
Unit 065: Southwestern Elko County
Report by: Sid Eaton

Tag Quotas and Harvest Results

Fifteen buck tags were issued for the 065 rifle hunts in 2004. The 2004-tag quota represented a one tag decrease from the 2003 season. The first pronghorn hunt ever conducted within this unit was in 2001. For specific 2004 hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

A ground survey was conducted in August 2004. A total of 80 pronghorn was classified as 17 bucks, 45 does and 18 fawns. The sex and age ratios were 38 bucks/100 does/29 fawns.

Weather and Habitat

In the summer 1999, over 230,000 acres of rangeland burned in this unit. Although these fires were devastating for deer, they improved pronghorn habitat over large portions of the area. Winter range may limit this herd over the long term and more data will be needed to delineate pronghorn winter range in this unit. Long-term data will also be a valuable aid in determining the population level the winter range can support. The extended periods of deep snow the past two winters could have negatively impacted this small antelope herd.

Population Status and Trend

The Unit 065 pronghorn population estimate remained static due to the low fawn ratio. The recommended tag quota for the 2004 season is expected to reflect little herd growth.

PRONGHORN ANTELOPE
Unit 066, Owyhee Desert: Northwestern Elko County
Report by: Ken Gray

Tag Quotas and Harvest Results

Sixteen-buck tags were available for the Unit 066 rifle pronghorn hunt in 2004. This represented a 3-tag increase from the 2003 quota. Hunter success for buck rifle hunters dropped to 56%. Since 1980, Unit 066 has averaged 7 rifle buck tags. For specific 2004 hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

No surveys were conducted within this unit in 2004. Only one survey has been conducted in the last 8 years.

Population Status and Trend

The Owyhee Desert portion of the Unit 066 antelope population appears to have stabilized at low numbers. Pronghorn in other portions of the unit group, such as the Snowstorm Range, the YP Desert, and the Petan Ranch, appear to be doing well. Due to the lack of survey effort over the past several years, no population estimate was generated. Based on the below average hunter success this past year, combined with the fact that a significant portion of the herd resides on the Petan Ranch Lands, which are

closed to hunting, the recommended buck quota for the 2005 hunting season will be lower than last year's quota.

PRONGHORN ANTELOPE

Units 067, 068: Western Elko and Northern Lander and Eureka Counties

Report by: Ken Gray

Tag Quotas and Harvest Results

Ninety-two rifle buck tags were available for the 067-068 Unit Group in 2004. The 2004 tag quota represented a 6-tag decrease from the 2003 quota. For specific 2004 hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

A winter ground survey was conducted within the Boulder Valley portion of this unit in February 2005. In March 2005 a ground survey was conducted on the west side of the Izzenhood Range. A sample of 353 pronghorn was classified as 76 bucks, 197 does and 80 fawns. The sex and age ratios of the sample were 39 bucks/100 does/41 fawns. Table 1 displays the survey data collected from the past 10 years.

Table 1. Observed buck ratios, fawn ratios and sample size for pronghorn in Units 067-068.

	2004	2003	1994-2003 Average
Bucks/100 does from surveys	39	42	44
Fawns/100 does from surveys	41	31	35
Sample size from surveys	353	380	396

Habitat

Twelve to 18 inches of snow covered the entire winter range from 11 January 2005 until the last week of February 2005. These snow conditions forced antelope from traditional wintering areas to even lower elevations. Antelope that usually winter on Bobs Flat spent most of the 2004-2005 winter in the Dunphy Hills. Antelope that normally winter on the Izzenhood Range and Sheep Creek Range western benches were forced into the sagebrush and greasewood flats towards the Valmy Power Plant. This is the first time that these animals have ever been observed wintering in this area.

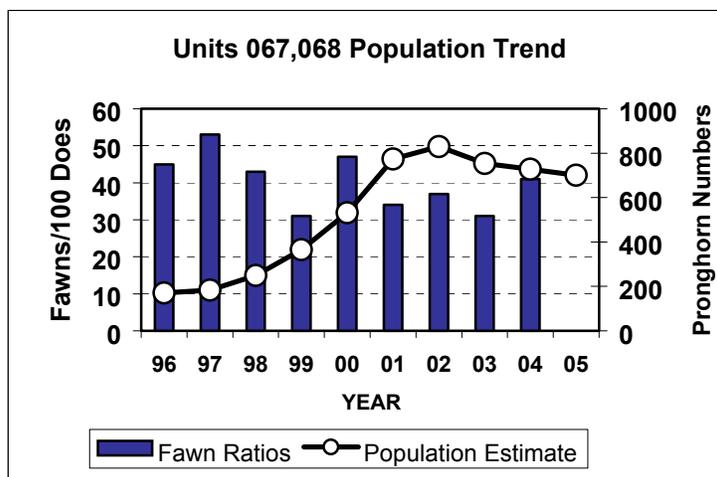


Figure 1. Observed fawn ratios and population trend of western Elko and northern Eureka and Lander County pronghorn herds.

The large winter range burns of 1999, especially on the west side of the Izzenhood Range, have not recovered due to the lack of precipitation and the domination of these sites by cheatgrass

Population Status and Trend

The winter of 2004-2005 was the second consecutive severe winter. The impacts of these past two winters to the 067-068 antelope herd will not be fully realized for a couple of years. However, antelope observed during the surveys this past winter and spring appeared to be in good condition. Fortunately, a trapping operation was conducted in January 2003 in which 168 doe and fawn antelope were removed from the population. Antlerless harvest during the past 5 years also helped maintain this population at stable numbers. It is possible, had these reductions not occurred, that a catastrophic die-off might have occurred in Boulder Valley due to the fact that there is simply not enough winter range to support more animals than currently exist. To facilitate population increases in this herd, future seedings on the west side of the Izzenhood Range, combined with proper livestock grazing levels, are needed. This year's estimate will be slightly below last year's because of the potential impacts that the winter had on antelope survival and because of the high buck harvest in 2004. The recommended number of antlerless tags will increase in order to slow the rate of population growth. Female harvest is intended to keep this population within the carrying capacity of the winter habitat. The recommended buck quota for 2005 is expected to be similar to the 2004 quota.

PRONGHORN ANTELOPE

Units 072, 074, 075: Northeastern Elko County
Report by: Kari Martin

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Survey resulted in 363 antelope being classified. The resulting ratio for the sample was 30 bucks/100 does/63 fawns. The fawn ratio indicates that the herd experienced increased production this year. The buck ratio is down from the five-year average of 36 bucks/100 does.

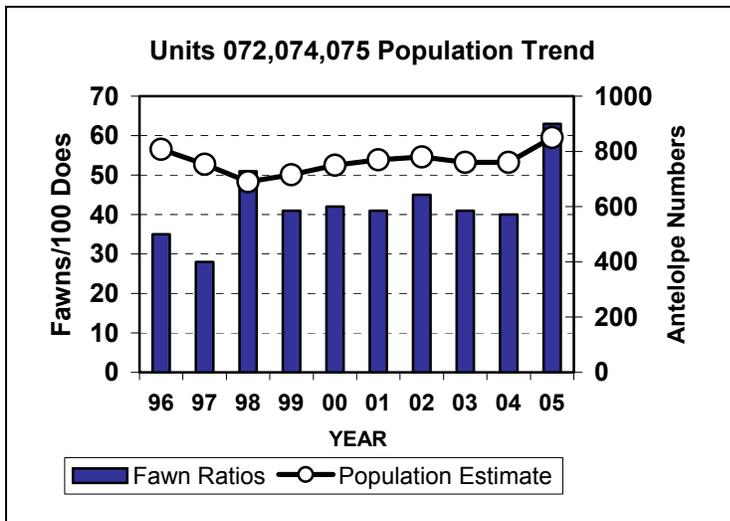


Figure 1. Observed fawn ratios and population trend of north-central Elko County pronghorn herds.

additional habitat combined with increased fawn ratios will allow this herd to continue to expand despite the loss experienced over winter.

Population Status and Trend

Overall, this pronghorn herd appears to be increasing. The above average spring and summer precipitation contributed to good fawn survival.

Over winter mortality in units 074 and 075 was slightly higher this year due to increased snow accumulations at the lower elevations. Ninety pronghorn believed to be from unit 075 attempted to evade snow depths by migrating south only to get hit by a train killing the entire herd, which included forty bucks.

The large amount of area that burned during the summers of 2000 and 2001 is providing additional habitat for pronghorn in most units. This

PRONGHORN ANTELOPE
Units 076, 077, 079, 081: Northeastern Elko County
Report by: Kari Martin

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Survey resulted in 95 antelope being classified. The resulting ratio for the sample was 27 bucks/100 does/34 fawns. The sample size was the same as in 2003. The buck ratio was down from the five-year average of 36 bucks/100 does. The fawn ratio was similar to the five-year average of 37 fawns/100 does (Figure 1).

Population Status and Trend

Overall, this pronghorn herd appears to be stable. The fawn ratio is similar to recent years and has allowed the population to maintain its level.

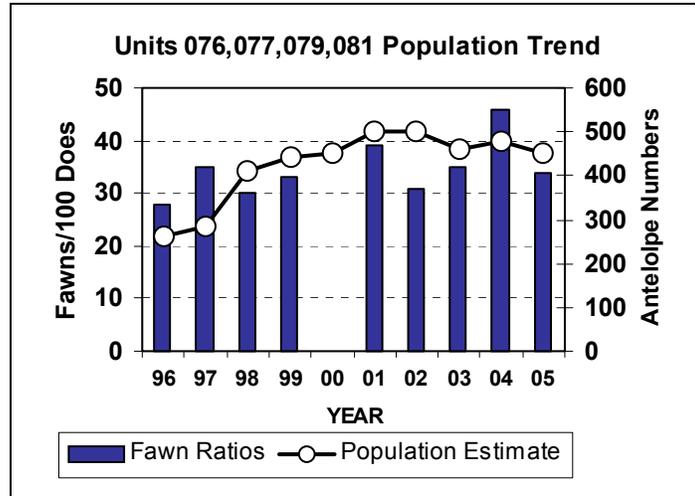


Figure 1. Observed fawn ratios and population trend of northeast Elko County pronghorn herds.

Although the observed buck ratio was lower than recent years, this could be attributed to the large amount of area that burned in these units during the summers of 2000 and 2001. These burns provided additional habitat for use by pronghorn making it difficult to locate individual bucks or small buck groups during ground surveys. Keeping this in mind, tag quotas will be conservative, but similar to last year.

PRONGHORN ANTELOPE
Units 078, 105 – 107, 121: Southeastern Elko and Central White Pine Counties
Report by: Tony Wasley

Tag Quotas and Harvest Results

Fifty-five tags were available for the rifle pronghorn buck hunt in 2004. Forty-nine tags were available in 2003. The 10-year average for tags in this unit is 58. Tag quotas have varied very little in this unit group. For specific 2004 hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Ground surveys were conducted over winter. In total, 449 animals were observed; 66 bucks, 278 does, and 105 fawns for ratios of 24 bucks/100 does/38 fawns. The observed fawn ratio is a marked increase over the 20-year-low fawn ratio of 21 surveyed in this unit group in 2002. The increased fawn ratio is a good sign for population growth in this unit group and is likely a by-product of the favorable habitat that resulted from favorable precipitation during 2004.

Habitat

The spring, summer, and fall of 2004 brought much needed and very welcome precipitation to much of this unit group. The increased rainfall enabled antelope to utilize forage in habitats that during drier periods may be water deficient. Additionally, forage production and forage quality are both increased as

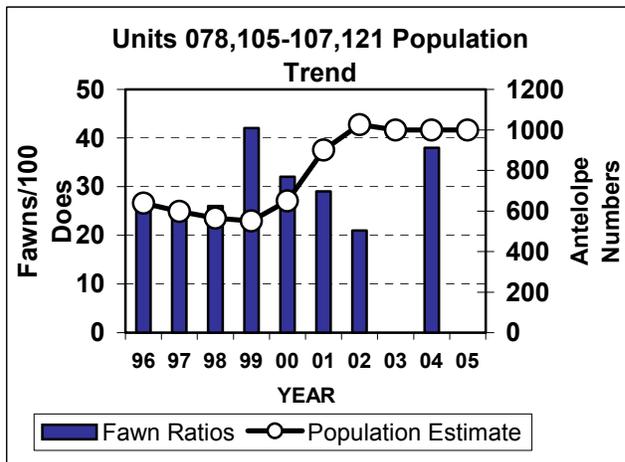


Figure 1. Observed fawns and population trend in southeastern Elko and central White Pine Counties.

a result of precipitation. The beneficial effects of much needed rain is evident in the population status and trend section below.

Population Status and Trend

The current population estimate for the 078, 105 – 107, & 121 Unit Group is slightly higher than the last 2 years (Figure 1). It is up significantly from past years and demonstrates a positive long-term population growth trend. This trend was bolstered by higher fawn ratios this past year.

PRONGHORN ANTELOPE

Units 101 – 104, 108: South Central Elko and Western White Pine Counties

Report by: Tony Wasley

Tag Quotas and Harvest Results

Fifty-eight tags were issued for the rifle pronghorn buck hunt in 2004. Fifty-five tags were issued for the rifle pronghorn buck hunt in 2003. The 10-year average tag quota for this unit group is 34 tags. For specific 2004 hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Ground surveys were conducted in October 2004. In total, 365 animals were observed; 86 bucks, 206 does, and 73 fawns for ratios of 42 bucks/100 does/35 fawns. The observed fawn ratio suggests maintenance level production is occurring.

Weather and Habitat

The spring, summer, and fall of 2004 brought much needed and very welcome precipitation to most of this unit group. The increased rainfall enabled antelope to utilize forage in habitats that during drier periods may be water deficient. Additionally, forage production and forage quality are both increased as a result of precipitation. The beneficial effects of much needed rain is evident in the apparent increased distribution throughout the unit group.

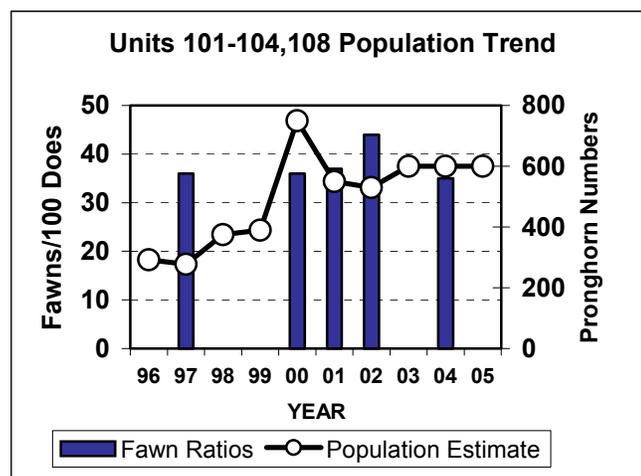


Figure 1. Observed fawn ratios and population trend of south central Elko and western White Pine County pronghorn herds.

Population Status and Trend

The current population estimate for the 101 – 104, & 108 Unit Group is approximately the same as last year (Figure 1, previous page). The long-term pattern is an upward trend that is due to pronghorn releases (+86 in 2003) and fair levels of recruitment. This unit group has displayed a positive growth trend for 5 of the last 8 years.

**PRONGHORN ANTELOPE
Units 111 - 114: Eastern White Pine County
Report by: Curt Baughman**

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

A ground survey was conducted during October and November 2004. This survey netted a sample of 1,155 pronghorn classified as 246 bucks, 696 does, and 213 fawns. The age and sex ratios of the sample were 35 bucks/100 does/31 fawns. No survey was conducted in 2003. The previous 10-year-average (1993-2002) sample size was 1,100 pronghorn with a composition of 34 bucks/100 does/31 fawns. Fawning habitat may have been better in 2004 than 2003 based on improved water and forage conditions observed during the 2004 summer. The 2004-05 winter was favorable for over-winter survival of pronghorn and fawn recruitment should have been average.

Habitat

Following favorable precipitation levels in 1997 and 1998, precipitation has averaged 80% in the Ely area. Forage conditions and water distribution have suffered accordingly. Grazing by livestock and horses has aggravated the effects of drought. Although the October, 2003 – September, 2004 water-year brought only 76% of average moisture, summer precipitation in 2004 was close to average for the first time since 1999. This had a positive effect on summer habitat conditions. Late summer green-up of grasses and forbs was widespread. The winter of 2004-05 brought the highest precipitation total to the Ely area since the winter of 1968-69. Fortunately, mild temperatures prevented low-elevation snow accumulations from becoming detrimental to pronghorn. An impressive snow-pack should result in improved water distribution in 2005. Horse gathers over the past winter have brought horse numbers down to management objectives in Antelope Valley and portions of Spring Valley. Spring habitat conditions for pronghorn should be the best in many years.

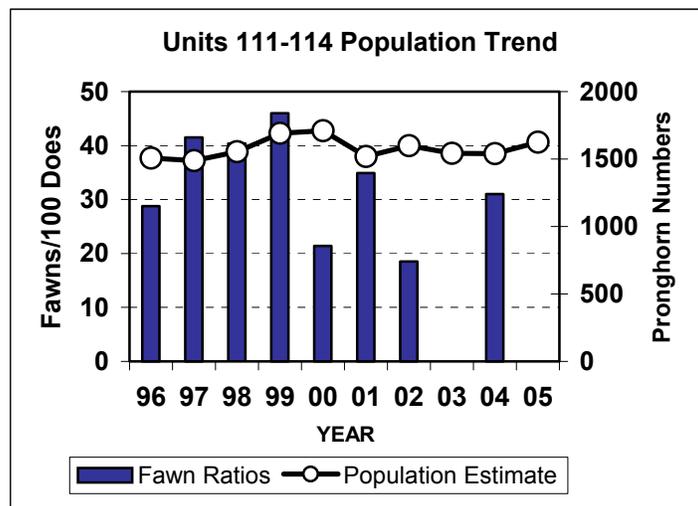


Figure 1. Observed fawn ratios and pronghorn population trends for eastern White Pine County.

Population Status and Trend

This unit-group continues to support a strong base population that has experienced a relatively static trend in previous years due to prolonged drought. The fawn recruitment projected for 2004 was likely underestimated. Fawn recruitment in 2005 is high enough for modest population growth resulting in a population estimate that is close to 100 animals higher than the 2004 estimate (Figure 1). Pronghorn are in good condition coming into the spring season. Improving habitat conditions present good potential for

further population expansion over the next year. The combination of favorable recruitment and a 2004 postseason buck/100 doe ratio of 35/100 should result in increased quota recommendations for 2005 seasons.

PRONGHORN ANTELOPE

Units 115, 231, 242: Eastern Lincoln and Southern White Pine Counties

Report by: Mike Scott

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Ground surveys were conducted for pronghorn in these units during September and October 2004. A total of 209 pronghorn was classified, consisting of 45 bucks, 113 does, and 51 fawns. These numbers result in a ratio of 40 bucks/100 does/45 fawns. Animals were found distributed throughout Lake, South Spring, and Hamlin Valleys.

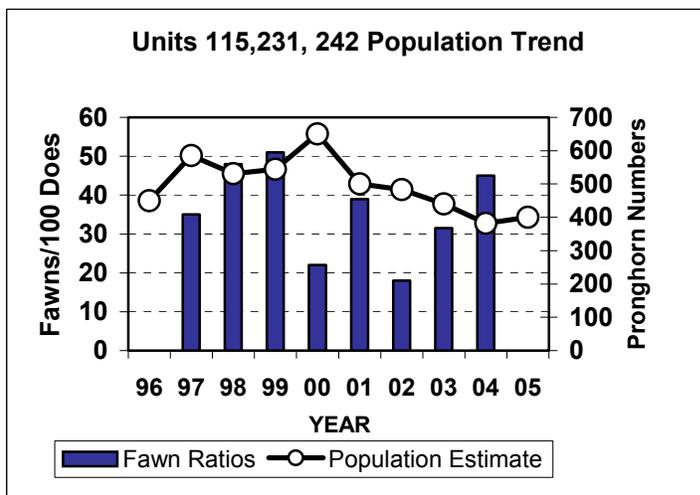


Figure 1. Observed fawn ratios and pronghorn population trends for Northeastern Lincoln County.

Habitat

The President of the United States recently signed the Lincoln County Land Act of 2004, into law. This act established fourteen wilderness areas in Lincoln County, consisting of over 750,000 acres. The act also authorizes Off-Highway Vehicle (OHV) trails, utility corridors, and Open Space Parks. This act may eventually result in water being transferred from Lincoln County to southern Lincoln and Clark Counties. In addition, the federal government has proposed a land withdrawal across Lincoln County for the Department of Energy Rail Line Corridor. Furthermore, private companies have targeted areas in Lincoln County for placement of wind-generated power structures. These

changes, combined with continued pinyon-juniper expansion into decadent stands of sagebrush, and unchecked feral horse numbers, will likely result in continued habitat degradation for Lincoln County.

Population Status, and Trend

The computer-modeled population estimate for 2005 is 400 animals, compared to 382 in 2004 (Figure 1).

PRONGHORN ANTELOPE

Units 131, 145, 163, 164 and a portion of 221*: Southern Eureka, Northeastern Nye, and Southwestern White Pine Counties

Report by: Mike Podborny

Tag Quotas and Harvest Results

Units 131 and 145 were combined with Units 163 and 164 and the southern portion of Unit 221 for Pronghorn Antelope Seasons in 2003. These changes were made to better reflect the home range of the antelope population and to simplify the hunt area, which had proven to be confusing and frustrating to hunters. Antelope were often crossing dirt roads from one hunt area to another on a daily basis. There

were 52 rifle buck tags available in the 2004 season and 35 antelope were harvested for 67% success. In 2003 the success was 84% during the rifle buck hunt. For complete hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

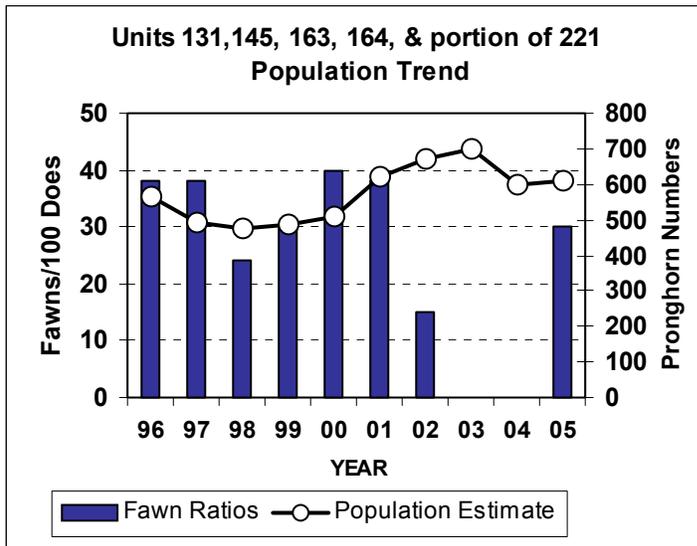


Figure 1. Observed fawn ratios and population trend of pronghorn herds in Units 131, 145, 163, 164 and 221.

favorable weather conditions. The larger population size and associated increased distribution has resulted in an increased use of alfalfa fields by antelope over the years. Fencing of some fields and the installation of guzzlers to provide additional water away from fields has lessened the impacts of antelope on private land. At the present time the trend in the population is estimated to be stable (Figure 1). As these antelope populations continue to increase in this area, the challenge will be to employ management that minimizes conflicts with private land. The quota recommendations for the 2005 season will be similar to the 2004 quotas.

PRONGHORN ANTELOPE

Units 132 - 134, 245: Eastern Nye and Western Lincoln Counties

Report by: Mike Podborny

Tag Quotas and Harvest Results

Sixteen tags were issued for the rifle buck hunt in 2004, down two from 2003. The record quota of 30 tags was in 2001. The 10-year-average quota (1992-2001) was 21 tags. The total harvest of 13 bucks in 2004 was below the 10-year-average harvest (1994-2003) of 20. A record harvest of 33 bucks was taken in 2001. For complete hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

There were only 74 antelope classified during limited post-season and winter herd composition surveys. The antelope were classified as 20 bucks, 45 does, and 9 fawns. The age and sex ratio of this sample was 44 bucks/100 does/20 fawns. Although statistically, these data were weak, they suggest poor but average fawn production and recruitment with a healthy buck ratio. There was no post-season herd composition survey conducted in this unit group in 2003. A record sample of 238 pronghorn was classified in 2002 and the resulting age and sex ratio was 28 bucks/100 does/6 fawns. The previous 5-year-average (1999-2003) ratio was 33 bucks/100 does/18 fawns.

Survey Data

There were 143 antelope classified during limited post-season herd composition surveys. The sample was collected in units 131 and 221 only with no antelope classified in any of the other three units. The antelope were classified as 27 bucks, 113 does, and 30 fawns. The age and sex ratio of the sample was 31 bucks/100 does/35 fawns. In 2003 samples were insufficient for comparison.

Population Status and Trend

This antelope herd has increased significantly in the past 20 years due to ingress of antelope from other areas, transplants, increasing habitat due to water developments and some

Habitat

The Caliente Nuclear Train Route proposed by the Department of Energy (DOE) from Utah to Yucca Mountain will bisect Units 132 and 133. There may be some negative affects on the pronghorn antelope population depending on fencing or other structures that might be associated with the project when it is constructed in the next few years.

Population Status and Trend

Survey data has been insufficient for the last two years to accurately determine status and trend of this antelope herd. The harvest data, reported sightings and other incidental data indicate the population is stable at low numbers (Figure 1) in 2005. Quota recommendations will likely change little for the 2005 season. This antelope population is at the southernmost extent of what is considered pronghorn habitat in Nevada with the southern portion being the transition between the Great Basin and the Mojave Desert. These desert conditions with low annual precipitation and hot temperatures result in small groups of antelope scattered over a large area at low densities. The productivity of this desert habitat is less than the more northern and wetter antelope habitats of Nevada and results in small population fluctuations from year to year. These small herds are closely associated with the limited water sources for six months of the year or more. There is much of this low-density antelope habitat available with no antelope due to the lack of water. It is believed that increasing water availability is the best method for increasing the size of this antelope herd.

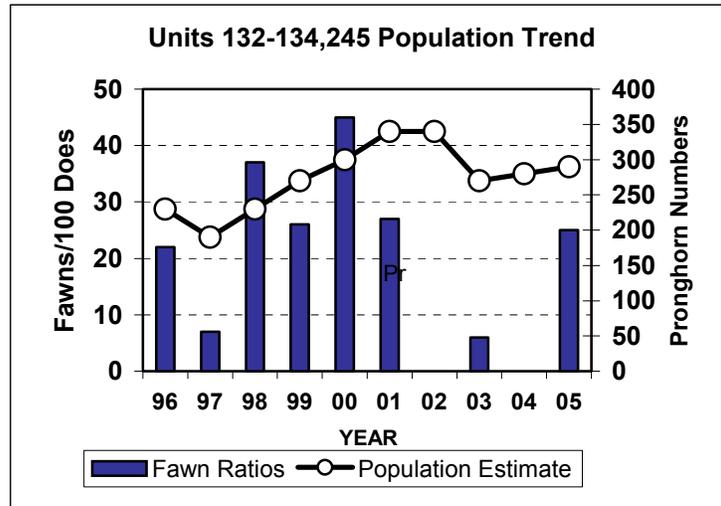


Figure 1. Observed fawn ratios and population trend of Eastern Nye and Western Lincoln County pronghorn herds.

PRONGHORN ANTELOPE

Units 141, 143, 151- 155: Eastern Lander and Eureka Counties

Reported by: Larry J. Teske

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

There were 246 animals were classified during post-season surveys. These consisted of 44 bucks, 149 does, and 53 fawns. The resulting ratios were 30 bucks/100 does/36 fawns. The previous year, 234 animals were classified with resulting ratios of 49 bucks/100 does/30 fawns.

Population Status and Trend

An additional 90 antelope captured at Parker Mountain, Utah were transported to Antelope Valley in unit 151 of Lander County and released during December 2004. The 90 released animals consisted of 10 adult bucks, 53 adult does, 11 juvenile bucks and 16 juvenile females.

Pronghorn populations in these hunt units continue to find and expand into recently burned areas. In many cases, rehabilitation on the burned areas has resulted in better habitat conditions than was present before the burn. Also, rehabilitated areas usually have tighter controls on livestock grazing which enables the plants to survive. In the case of smaller burns, just the creation of openings in the brush has improved habitat for antelope.

There are still several grazing allotments within the herd area that do not have grazing plans in place. These areas still allow season-long grazing with no stipulations for moving the livestock. The Battle Mountain BLM District is making slow progress towards achieving the goals of having allotment management plans. Two more allotments will soon have plans in place. Unfortunately, allotments that contained feral horse herds were the ones that got the highest priority for completion. Areas with no horses, even with high wildlife values, were placed further down the list. Another factor was land ownership. Allotments with considerable checkerboard land ownership patterns were near the bottom of the list for management plans. Antelope that find themselves in allotments with no grazing plans in place often can only utilize small portions of the allotment that are often further from water but have better forage because of the fact that poor water distribution limits livestock use.

Buck quota recommendations are expected to be the same or slightly higher than last year.

PRONGHORN ANTELOPE

Units 161, 162: Northern Nye, Southeastern Lander, and Southwestern Eureka Counties

Report by: Tom Donham

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

A total of 216 pronghorn was observed in 2004 during the fall post-season survey period. The sample included 53 bucks, 133 does, and 30 fawns. Although production remained below average in 2004, the observed fawn ratio of 23 is an improvement over fawn ratios observed during the previous two years. A total of 120 pronghorn was observed during the previous survey, conducted in 2003. The 2003 sample included 31 bucks, 77 does, and 12 fawns.

Population Status and Trend

Survey data collected during the mid-to late 1980's indicated a building trend in all central Nevada pronghorn populations. Growth of the populations slowed in response to lowered herd production/recruitment rates due to drought conditions, prevalent most years since early 1985. These types of conditions can result in poor body condition of adult animals, resulting in under weight fawns, as well as reducing fawn hiding cover during the time when they are most susceptible to predation. Following an initial decrease in the 161-162 pronghorn herd, the population remained relatively stable during the late 1990's. During 2002 and 2003, production/recruitment levels dropped noticeably in response to extremely dry conditions, again resulting in a downward trend of the population (Figure 1). Production rates increased somewhat in 2004 in response to slightly more favorable climatic conditions, and the downward trend of the 161-162 pronghorn population presently appears to have temporarily stabilized. Recent improvements in climatic conditions and the potential positive impacts it may have on pronghorn habitat may allow for some herd growth in the near future. Although fair numbers of bucks are present in the herd, the poor production rates experienced during 2002-03 will impact the availability of bucks in the 2-3 year old class during the upcoming season. The current population estimate for the 161-162 pronghorn herd is approximately 230 adult animals.

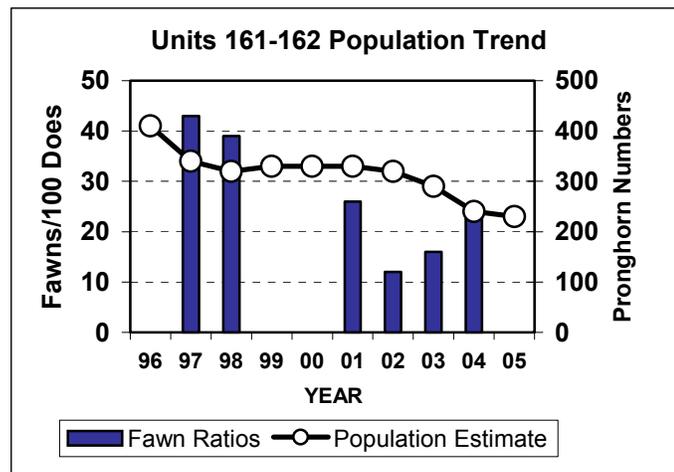


Figure 1. Observed fawn ratios and population trend of pronghorn herds in Units 161 and 162.

PRONGHORN ANTELOPE**Units 171 - 173: Northwestern Nye and Southern Lander Counties****Report by: Tom Donham****For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.****Survey Data**

During the 2004 post-season survey period, a total of 72 pronghorn was observed. The sample included 34 bucks, 30 does, and 8 fawns for a ratio of 113 bucks/100 does/27 fawns. Heavy precipitation receipts prior to and during the 171-173 survey caused pronghorn to be widely scattered, and in small groups, resulting in a small sample size and an obviously biased buck ratio. The previous ground survey was conducted in 2003 and produced a sample of 102 pronghorn consisting of 34 bucks, 43 does, and 25 fawns.

Habitat

During the spring 2004, a wildlife water development project (lone #3) was completed in lone Valley. The lone #3 project compliments two others that were constructed during the 1990's, further increasing the availability of seasonal habitat to pronghorn in lone Valley.

Population Status and Trend

Three releases of pronghorn have occurred in lone Valley, Unit 172, totaling 173 animals. The first release of 94 animals occurred on 13 January 13 1988. A second release of 49 animals took place in December 1999. The most recent release occurred on January 15, 2003 and consisted of 30 animals. Following releases in Area 17, some animals appear to disperse into adjoining areas. This phenomenon has resulted in a somewhat slow establishment of the Management Area 17 herd to current levels, but has benefited surrounding areas at the same time.

The largest portion of the Area 17 pronghorn herd currently inhabits the southern portions of Units 172 and 173. Throughout the rest of Area 17, pronghorn typically can be found in small, widely scattered groups. Currently, the Unit 171-173 pronghorn population appears to be stable with a population estimate of approximately 140 adult animals.

PRONGHORN ANTELOPE**Units 181-184: Churchill, Southern Pershing, Western Lander and Northern Mineral Counties****Report by: Jason Salisbury****For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.****Survey Data**

Ground surveys were conducted during the fall of 2004. Increased survey efforts resulted in a record survey, which was aided by pronghorn being observed on aerial bighorn sheep composition surveys. A total sample of 144 animals was classified consisting of 42 bucks, 67 does and 35 fawns for a ratio of 63 bucks/100 does/52 fawns. Fifty percent of the antelope observed were located on alfalfa farms in Unit 184; a portion of the antelope herd in Unit 184 exists on farms located on the boundary between Unit 184 and Unit 172. However, the majority of these antelope spend most of their time in Unit 184.

Population Status and Trend

Pronghorn in Area 18 continue to expand their density and distribution. Currently the population consists of small numbers and groups of antelope that are scattered over a large geographic area. Immigration from adjacent hunt units continues to bolster the population in Area 18. An augmentation of 100 antelope is scheduled for Antelope Valley Unit 181 in fiscal years 2006 or 2007. Recruitment for 2004 appears

adequate to allow for expansion of antelope in this unit group. The current population estimate is approximately 160 animals.

PRONGHORN ANTELOPE
Units 202, 204, Lyon and Mineral Counties
Report by: Jason Salisbury

For hunting season results, please refer to the Harvest Tables in the Appendix Section.

Survey Data

Pronghorn surveys were conducted on the ground on 8 February 2005. A sample of 135 pronghorn was classified as 31 bucks, 65 does and 39 fawns. The sex and age ratios of the sample were 48 buck/100 does/60 fawns.

Population Status and Trend

The current population estimate for Nevada's portion of the Bodie-Wassuk interstate herd is 140 animals. The current population appears to be stable. Hunting success rates for this unit has been low for many years due to the population not migrating into Nevada until October. Weather events usually aid in the movement of animals from California into Nevada. The 2005 season will encompass the middle of October to the end of October. This will help ensure adequate numbers of antelope are present in Nevada for the hunt. California still opts not hold an antelope hunt for this herd.

PRONGHORN ANTELOPE
Units 205, 206, Eastern Mineral County
Report by: Jason Salisbury

For hunting season results, please refer to the Harvest Tables in the Appendix Section.

Survey Data

No surveys were conducted in 2004. The last survey for this unit group was conducted in 1993, which resulted in a composition ratio of 60 bucks/100does/25 fawns. Antelope in this unit group reside over a large geographic area making them difficult to locate. More intense surveys are needed to accurately access population levels and recruitment into this herd.

Population Status and Trend

The current population estimate for this herd is 250 animals.. The hunter success rate for the 2004 rifle hunt was 69%, which is near the five-year average of 75%. This is an indicator of a stable population.

PRONGHORN ANTELOPE
Units 203-291: Lyon, Douglas Counties
Report by: Jason Salisbury

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

In September 2004, ground surveys resulted in the classification of 14 animals. This sample consisted of 4 bucks, 6 does and 4 fawns, which resulted in a composition ratio of 67 bucks/100 does/80 fawns.

Population Status and Trend

Two releases of pronghorn have occurred in the Churchill Canyon area, of unit 291 and 203. The first release of 42 animals occurred on 12 December 1999. The second release consisted of 45 animals and occurred on 7 December 2001.

The pronghorn population for these unit groups is relatively unknown. Random sightings occasionally occur in the Singates, and Buckskin Ranges. In September of 2004, 18 unclassified antelope were reported in the Sunrise Burn area located in the Pine Nut Mountains. Consistent sightings have also been observed and reported on the Alkali Lake Wildlife Management Area. Sightings that usually occur consist of small groups of antelope spread out over a large geographic area. Based on these sightings it is believed that sufficient pronghorn numbers now exist to allow for a limited hunting season. This season is scheduled for September of 2005.

PRONGHORN ANTELOPE

Units 221 – 223, 241: Lincoln and Southern White Pine Counties

Report by: Mike Scott

For hunting season results, please refer to the Pronghorn Harvest Tables in the Appendix Section.

Survey Data

Ground surveys were conducted for pronghorn in these units during September and October 2004. A total of 149 pronghorn was classified consisting of 30 bucks, 96 does, and 23 fawns. These numbers resulted in a ratio of 31 bucks/100 does/24 fawns. Animals were distributed fairly evenly throughout the major valleys in all units.

Habitat

The President of the United States recently signed the Lincoln County Land Act of 2004, into law. This act established fourteen wilderness areas in Lincoln County, consisting of over 750,000 acres. The act also authorizes Off-Highway Vehicle (OHV) trails, utility corridors, and Open Space Parks. This act may eventually result in water being transferred from Lincoln County to southern Lincoln and Clark Counties. In addition, the federal government has proposed a land withdrawal across Lincoln County for the Department of Energy Rail Line Corridor. Furthermore, private companies have targeted areas in Lincoln County for placement of wind-generated power structures. These changes, combined with continued pinyon-juniper expansion into decadent stands of sagebrush, and unchecked feral horse numbers, will likely result in continued habitat degradation for Lincoln County.

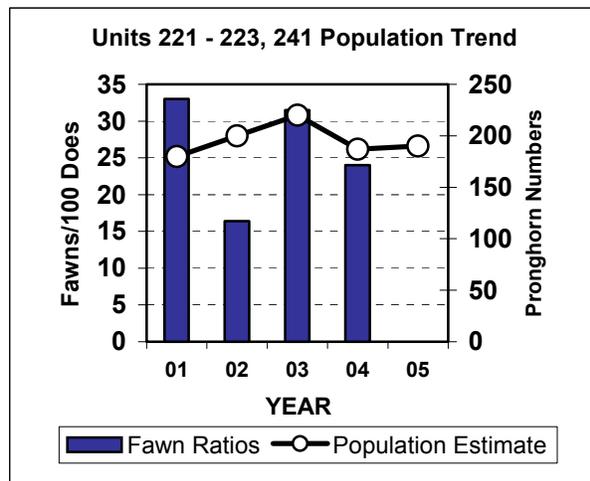


Figure 2. Observed fawn ratios and pronghorn population trends for Unit Group 221 – 223, 241.

The computer-generated population estimate for 2005 is 190 animals, compared to 187 in 2004.

PRONGHORN ANTELOPE
Unit 251: Central Nye County
Report by: Tom Donham

Survey Data

A total of 45 pronghorn was observed during the 2004 post-season survey period. The sample included 6 bucks, 31 does, and 8 fawns for ratios of 19 bucks/100 does/26 fawns. The small size of the sample obtained is due to a shortened survey and less than optimal survey conditions. As was the case in other areas of central Nevada, the observed fawn ratio of 26 was an improvement over those observed in the recent past. The previous survey took place during the fall of 2003 when a total of 86 pronghorn was observed. The sample included 19 bucks, 57 does, and 10 fawns.

During February 2005, an aerial survey was conducted on the northern end of the Tonopah Test Range (TTR) in conjunction with TTR personnel. A total of 129 pronghorn was observed in the south Stone Cabin Valley area, just south of the TTR boundary. The animals were classified as 33 bucks and 96 does and 0 fawns. Separation of fawns from does was not possible due to the type of aircraft being used and survey conditions. The previous year, during a ground survey conducted on the TTR in December of 2003, a total of 125 pronghorn was observed wintering in the same area.

Habitat

Although habitat conditions throughout central Nevada have suffered due to prolonged drought conditions, impacts to Unit 251 have been even more severe due to excessive numbers of horses present in the area. Large numbers of feral horses can not only limit the amount of forage available to pronghorn during the year, but can impact the vegetative cover necessary for fawns to hide in to avoid predation. In addition, horses are impacting many critical water sources and associated habitats. Drought conditions have only intensified the importance of these water sources and associated habitats to the pronghorn population as a whole, and particularly to the young of the year. As long as horse numbers remain at these high levels, wildlife habitat in this area will continue to be degraded and the pronghorn population will never reach its potential.

The Department of Energy (DOE) is also proposing to route the Yucca Mountain rail alignment through this area. If the proposed project goes through, it will certainly impact pronghorn habitat in the area. It is impossible to determine how significant the impacts will be until more details are known about the project.

Population Status and Trend

The Unit 251 pronghorn population experienced stable population levels for several years during the late 1990's, as did those throughout much of central Nevada. These herds experienced decreased production/recruitment during 2002 and 2003 due to extremely dry conditions, resulting in decreasing population trends. Although conditions have improved in the short-term, and there are still a fair number of mature bucks available for harvest in Unit 251, the availability of bucks in the 2-3 year old class will be reduced during the upcoming season. Recent improvements in climatic conditions should allow the herd to stabilize in the short-term, but significant growth of this herd is not expected until horse and land management practices improve. Presently, the population estimate for Unit 251 is approximately 180 adult animals.

ROCKY MOUNTAIN ELK

ROCKY MOUNTAIN ELK

Units 061, 071, Bruneau River and Merritt Mountain Area: Northern Elko County

Report by: Ken Gray

Tag Quotas and Harvest Results

Thirty-eight rifle bull elk tags, including incentive tags, were available for the 2004 season. This represented a 9-tag increase from the 2003 tag quota. Hunter success for the resident rifle bull hunt was 50%. For specific 2004 hunting season results, please refer to the Elk Harvest Tables in the Appendix Section.

Survey Data

A total of 647 elk was classified from a helicopter during December of 2004. The elk were classified as 153 bulls, 337 cows, and 157 calves. The sex and age ratios of the sample were 45 bulls/100 cows/47 calves (Table 1).

Table 1. Observed bull ratios, calf ratios and sample size for elk in Units 061-071.

	2004	2003	1997-2003 Average
Bulls/100 cows from winter surveys	45	30	32
Calves/100 cows from winter surveys	47	45	43
Sample size from winter surveys	647	512	314

Habitat

The monitoring plan associated with the Bruneau River Watershed Analysis approved in April of 1994, stated "Wildlife effects on the attainment of vegetative Desired Future Condition would be assessed at the 5 year and 10 year intervals following project implementation". During the summer of 2003, The Rocky Mountain Elk Foundation contracted Botanist Catherine Davis, a consultant, to monitor vegetation to assess the impact to vegetation from the increased elk population, specifically elk use as it related to the attainment or non-attainment of desired future condition. The study concluded that elk did not have a measurable impact on upland mesic (meadow), upland sagebrush, mountain shrub or aspen vegetative communities within the Bruneau River watershed. There was evidence of a negative impact from over-utilization from cattle, elk and deer on Mountain Mahogany. The study concluded that more monitoring work was needed within this vegetation type.

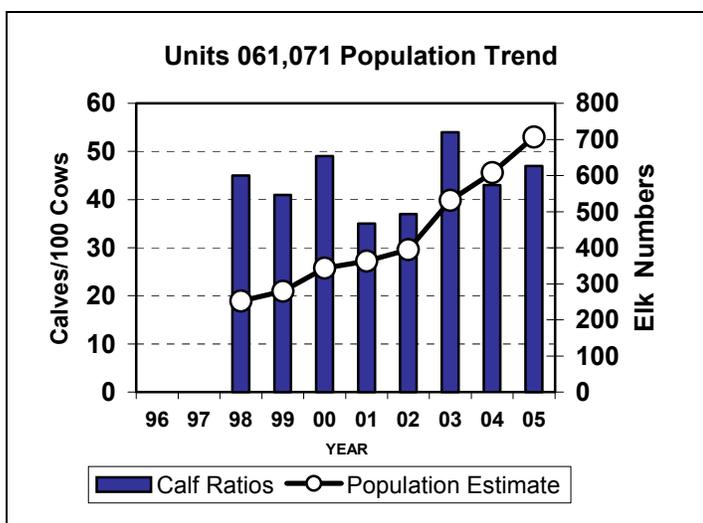


Figure 1. Bruneau River Elk Herd population trends

Population Status and Trend

The calf recruitment continues to facilitate the rapid growth of this elk herd. The Unit Group 061-071 population estimate increased nearly 100 animals over last year's estimate (Figure 1). This elk herd is still below the carrying capacity of both winter and summer habitat. In addition, there have been very few private land conflicts with this elk herd. The recommended quota for 2005 is expected to be higher than last year.

ROCKY MOUNTAIN ELK

Units 062, 064, 066 - 068, Independence and Tuscarora Ranges: Western Elko and Northern Eureka and Lander Counties

Report by: Ken Gray

Tag Quotas and Harvest Results

The 2004 hunt was the second elk hunt held in this unit group. One bull archery tag, 1 bull muzzleloader tag and 4 bull rifle tags were available. For specific 2004 hunting season results, please refer to the Elk Harvest Tables in the Appendix Section.

Survey Data

A total of 162 elk was classified from the ground, air and sportsmen photos during January, February and March of 2005. The elk were classified as 44 bulls, 79 cows, and 39 calves. The sex and age ratios of the sample were 56 bulls/100 cows/49 calves. Table 1 depicts the survey data obtained for the past 4 years.

Table 1. Observed bull ratios, calve ratios and sample size for elk in Units 062-068.

	2004	2003	2001-2003 Average
Bulls/100 cows from winter surveys	56	48	35
Calves/100 cows from winter surveys	49	50	54
Sample size from winter surveys	162	95	59

Habitat

In the summer of 2004, approximately 10.5 miles of elk proof fence was constructed around the Welches Creek Fields in Boulder Valley. This fence was very effective in keeping elk out of the alfalfa fields and on their adjacent high quality winter range. An alfalfa stack-yard was also fenced on the northern end of Boulder Valley.

Population Status and Trend

Excellent calf recruitment for the past three years has facilitated rapid population growth of this elk herd. The current population is estimated close to 165 elk, which represents an increase of 27% over last year's estimate. The recommended tag quota will be higher than last year's.

ROCKY MOUNTAIN ELK
Units 072, 074 Jarbidge Mountains: Northern Elko County
Report by: Kari Martin

For hunting season results, please refer to the Elk Tables in the Appendix Section.

Survey Data

Post-season (winter) surveys resulted in the classification of 620 elk and a ratio of 27 bulls/100 cows/53 calves. Sample size was almost twice the previous year's level. The post-season calf ratio indicates that the herd experienced good production.

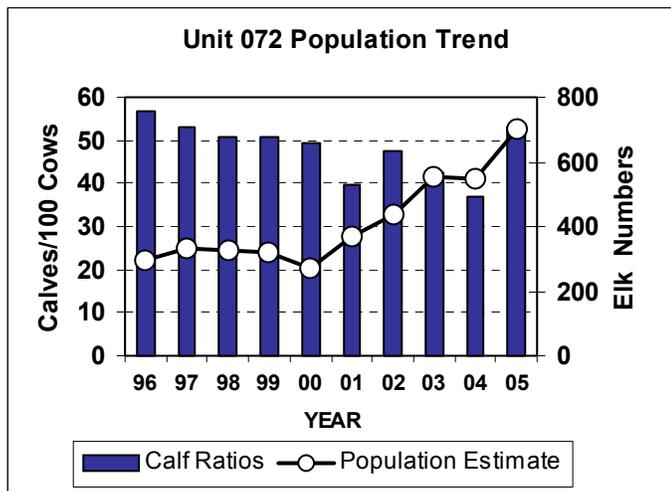


Figure 1. Observed calf ratios and population estimates for the Jarbidge Mountains elk herd.

Population Status and Trend

The Unit 072 elk herd has experienced an upward trend (Figure 1) since 2000, primarily due to the lowering of the antlerless quotas and a reduced elk season in Idaho. This year's recruitment rate is good and will allow for an increase in the elk population. The new *Jarbidge Mountains Elk Herd Management Plan* identifies an elk herd population objective of 1,000 animals. In order to slow down the growth of this elk herd as it approaches the population objective, and provide recreation, antlerless hunts have been scheduled for the 2005 hunting seasons. New in 2005 is the addition of the 074-hunt unit for bulls only.

ROCKY MOUNTAIN ELK
Units 075, Snake Mountains: Elko County
Report by: Kari Martin

Seasons, Tag Quotas and Harvest Results

Antlerless elk tags were increased in this hunt unit for the 2004 hunting season. In order to stay within the population objectives of the 075 elk sub-plan, adequate harvest of both sexes must be accomplished to maintain this population at 100 animals. Since the first elk hunt in this unit during the fall of 1999, quotas have been significantly increased in response to the elk population growth and NDOW's responsibility to maintain the population objective. For a complete breakdown of success by method of harvest and antler point class, please refer to the tables in the appendix.

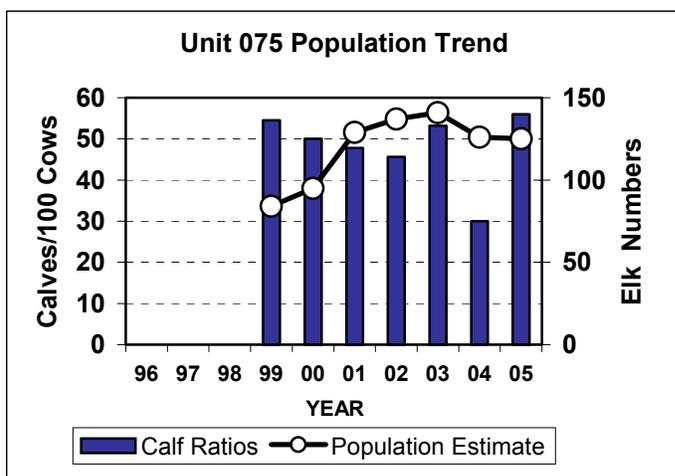


Figure 1. Snake Mountains elk population trends.

Survey Data

Post-season (winter) surveys resulted in the classification of 129 elk. The resulting ratio for this sample was 34 bulls/100 cows/56 calves. The sample size was slightly above the previous year's level. This area was surveyed the second week in December, before

the significant snowstorms made bulls difficult to locate. It is believed that some bull elk may move into the area from adjacent units during the rut from late August through October. It is also important to note that the majority of the sample was obtained outside the boundaries of Unit 075 where this larger group of elk spent the winter in the south end of Unit 074.

Population Status and Trend

The Unit 075 elk herd has grown since the original elk release in 1997 (Figure 1, previous page). This year’s observed recruitment rate of 56 calves/100 cows is above last year’s ratio of 30 calves/100 cows. The model predicts a similar elk population level for 2004. The almost static trend in population size despite increased calf ratios was due to the planned harvest of all classes of elk.

With the high percentage of deeded land, hunter access remains difficult in localized areas. In order to achieve maintenance of the hunt unit’s population objective of 100 elk post-hunt, more hunting opportunities will be recommended including antlerless tags with later season dates for 2005.

ROCKY MOUNTAIN ELK

Units 076, 077, 081, Thousand Springs, Goose Creek, and Pequop Mountains Area: Northern Elko County

Report by: Kari Martin

For hunting season results, please refer to the Elk Harvest Tables in the Appendix Section.

Survey Data

Post-season (winter) surveys resulted in the classification of 951 elk and a ratio of 56 bulls/100 cows/54 calves. This sample size was more than double the number of elk classified the previous year. The observed bull ratio was higher than the expected post-season bull ratio objective of 40 bulls/100 cows.

Population Status and Trend

The 076, 077, 081 elk herd continues to experience an upward trend with a ten-year average recruitment rate of 46 calves/100 cows (Figure 1). Starting with the 2003-hunting season, hunt unit 076 was included in unit group 076, 077 and 081.

This elk herd has reached it’s population objective of 1,050 elk. In response to achievement of the population objective along with documentation of a high bull ratio and good calf recruitment in these units, more hunting opportunities will become available with expected tags increases this year.

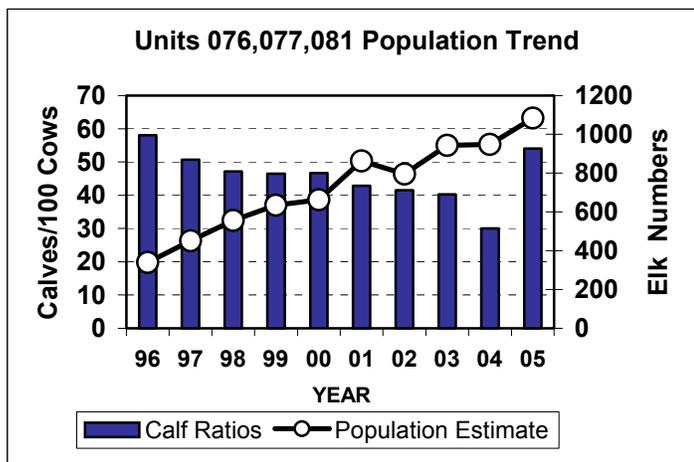


Figure 1. Northeastern Elko County elk population trends.

ROCKY MOUNTAIN ELK
Unit 079 Pilot Range, Eastern Elko County
Report by: Kari Martin

For hunting season results, please refer to the Elk Harvest Tables in the Appendix Section.

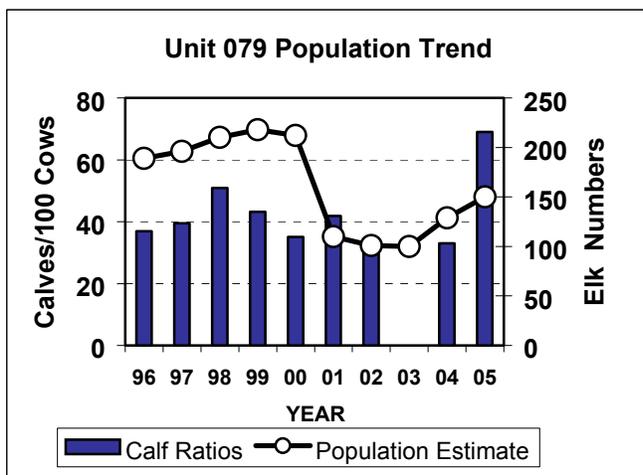


Figure 1. Pilot Range elk population trends

allocated equally each year between Nevada and Utah. Bull quotas for 2005 will remain similar to the previous year. Antlerless harvest has been discontinued for this elk herd at the present time.

ROCKY MOUNTAIN ELK
Unit 101 – 103, East Humboldt and Ruby Mountains: Elko County
Report by: Tony Wasley

Tag Quotas and Harvest Results

After several years of gradual reductions in the cow tag quota for this unit group, 2004 saw a slight increase in tags from 21 tags in 2001, 2002, & 2003 to 30 tags in 2004. The bull tag quota also increased from 10 in 2002 and 2003 to 15 in 2004. Both cow and bull tag quota increases were warranted by the increase in hunter success and increase in elk observed in these units. For specific 2004 hunting season results, please refer to Harvest Tables in the Appendix Section.

Survey Data

Specific elk surveys are not conducted this unit group, but intensive helicopter surveys are conducted for deer, bighorn sheep, mountain goats, and pronghorn. Elk observations are documented during these surveys, when hunters and others report sightings, or when landowner complaints are investigated. Incidental to other wildlife surveys in the area, 15 elk were observed from the helicopter in all of Units 101, 102, & 103. Only three complaints of elk use or damage have been received from landowners over the past six years.

Population Status and Trend

This is a depredation hunt with the objective of eliminating elk or keeping elk numbers at a level where depredation on agriculture does not occur and a viable elk herd does not become established. This hunt has been very effective to that end. At this time, it is believed that there are very few if any yearlong resident elk herds in these units. Observations have been reported of individual elk and small groups of elk either wholly within the unit, crossing the unit boundary, or near the periphery of these hunt units.

Survey Data

Post-season (winter) surveys resulted in the classification of 64 elk in December 2004. The resulting ratio for this sample was 77 bulls/100 cows/69 calves.

Population Status and Trend

The population model for Unit 079 in 2005 predicts a pre-hunt adult elk population of approximately 150 elk (Figure 1). The small sample obtained in 2004 suggests there is an excellent representation of bulls in the population and calf recruitment was good. For the 2004 hunting season, Utah hunters harvested three bulls and Nevada hunters harvested four bulls (one was a PIW tag holder). The allowable elk harvest quota is

However, despite these periodic observations, the population remains at extremely low levels throughout most of the hunt units.

ROCKY MOUNTAIN ELK
Units 078, 104, 105 - 107, Spruce Mountain: Elko County
Report by: Tony Wasley

Tag Quotas and Harvest Results

In the fourth year of this relatively new hunt, four any legal weapon tags were available and two hunters were successful. For specific 2004 hunting results, please refer to Harvest Tables in the Appendix Section.

Survey Data

Winter surveys were conducted in January 2005 via helicopter. A total of 139 elk was observed, with 15 bulls, 100 cows, and 24 calves for ratios of 15 bulls/100 cows/24 calves. The 2005 survey is up considerably from last year and comparable with the 132 animals observed in 2003 and 154 in 2002. This survey demonstrates that elk production and recruitment continue to be low, and negatively affect the population's growth potential.

Weather and Habitat

Winters have been mild in this area and adult elk appear virtually unaffected by the winter. However, survey data suggests that calf production and recruitment may have suffered from the recent extreme drought conditions and subsequent poor forage production. Increased precipitation, seedings, chainings, and increased water availability via guzzlers, should all help the Spruce Mountain elk herd overcome the low recruitment this population has suffered for the last 3 -4 years.

Population Status and Trend

In the winter of 1997, 146 elk were released in Unit 105 on Spruce Mountain. It has been over eight years since the releases and the elk have established themselves throughout Unit 105. Although production has been slow several mature bulls have been observed and harvested. The herd appears to be expanding its distribution as elk have been observed moving north into unit 078. The low levels of calf recruitment continue to hamper population growth. However, harvest management is designed to promote herd growth towards the population objective of 340 elk. Additionally, several habitat projects in the area, including chainings, seedings, and water developments, should assist this struggling population.

ROCKY MOUNTAIN ELK
Units 104, 108, 121, Cherry Creek, Egan, Butte, and Medicine Ranges: Northern White Pine County
Report by: Sid Eaton

Tag Quotas and Harvest Results

Six rifle tags were allotted for these hunt units in 2004. One muzzleloader and one archery tag were also available. This was an increase of 2 tags above the total issued in 2003. Four rifle hunters were successful in harvesting one 4 point and three 6 point bulls for an overall success rate of 50%. Additional harvest information can be found in the Harvest Tables of the Appendix Section.

Survey Data

Elk slowly pioneered into this area over the past 30 years. An augmentation release of 50 elk occurred in January 2001. A combination of random reports, telemetry data, and observations made during the course of helicopter deer surveys has indicated that elk are well distributed throughout many portions of the unit group. The first formal elk survey was conducted in January of 2004 resulting in the classification

of 79 animals. The bull and calf ratios calculated from the sample were 39 bulls/100cows/41calves. The elk were widely distributed and in small groups. Nine of the ten radio-collared cows were located. Winter survey efforts of December 2004 netted a sample of 40 elk with resulting ratios of 20 bulls/100 cows/6 calves.

Weather and Habitat

Drought conditions persisted for several years. This led to a deterioration of habitat conditions. However, with the above normal precipitation of the past two winters there is the potential for habitat conditions to improve. The construction of several wildlife water developments in these hunt units has enabled elk to expand seasonal use. Wildfires that occurred in recent years appear to have benefited elk.

Population Status and Trend

The White Pine County Elk Sub-plan identifies 550 elk as the population objective for that portion of Unit 121 in White Pine County. The Wells Resource Management Plan Elk Amendment sub-plan set an objective level of 220 elk for the Elko County portion Unit 104. Under the White Pine Sub-plan, no target levels were set for the White Pine County portions of Units 104 and 108. Currently, the White Pine Elk Technical Review Team is in the process of revising that sub-plan. The current population for all units is estimated to be between 125 and 175 elk. An absence of antlerless elk harvest should allow for slow herd growth, even during drought conditions. Bull tag quota recommendations are expected to be similar to last year.

ROCKY MOUNTAIN ELK

Units 111 - 115, 221, 222, Schell, Egan, and Snake Ranges: Eastern White Pine, and Northern Lincoln Counties

Report by: Curt Baughman

Seasons, Tag Quotas and Harvest Results

The total quota of 1,063 tags in 2004 was down slightly from the 1,080 tags in 2003. In an effort to balance the 2004 harvest, bull quotas were increased while cow quotas decreased. Elk hunters reported a harvest of 561 elk in 2004 including 281 bulls and 280 antlerless elk. The purpose of antlerless elk harvest is to improve elk distribution and manage elk numbers within objective levels outlined in the White Pine County Elk Subplan.

In spite of difficult conditions during the 2004 hunt, 65% of the bulls taken were 6-point or better, down slightly from the 69% 6-point or better bulls harvested during the 2003 seasons. During a three year study to determine the age of harvested elk in this unit-group, over 55% of successful hunters sent in the front incisor teeth from their bulls. Age analysis of the teeth indicates the average age of bull elk was 5.0 years for the 2001 harvest, 5.2 years in 2002 and 5.6 years for the 2003 harvest.

These data support computer model estimates of increasing bull ratios and maintenance of an older-age bull structure in recent years. Six-point and better bulls represented 29% of all bulls observed in the 2005 helicopter survey sample and were up eight percent from last year's figure. The percentage of 5-point and better bulls in the sample was static at 53%. Observed bull ratios are conservative due to the difficulty associated with locating small isolated bull groups.

For more specific hunting season results, please refer to the Harvest Tables in the Appendix Section.

Survey Data

The 2005 winter survey was conducted in late January. A sample of 2,224 elk was classified as 428 bulls, 1,280 cows, and 516 calves. The resulting age and sex ratio was 33 bulls/100 cows/40 calves. Last year's (2004) sample of 2,364 elk included 441 bulls, 1,403 cows, and 520 calves, for a ratio of 31 bulls/100 cows/37 calves. This ratio averaged 28 bulls/100 cows/40 calves for the previous ten years

(1994-2003). The previous 5-year-average (1999-03) sample size was 1,984 elk. An additional 453 elk were classified on the border of the Goshute Indian Reservation. These were later judged to be elk that had been displaced from the reservation by deep snow. Heavy mountain snow resulted in elk being found much lower than usual. The net effect was that elk were spread over more country than normal. In

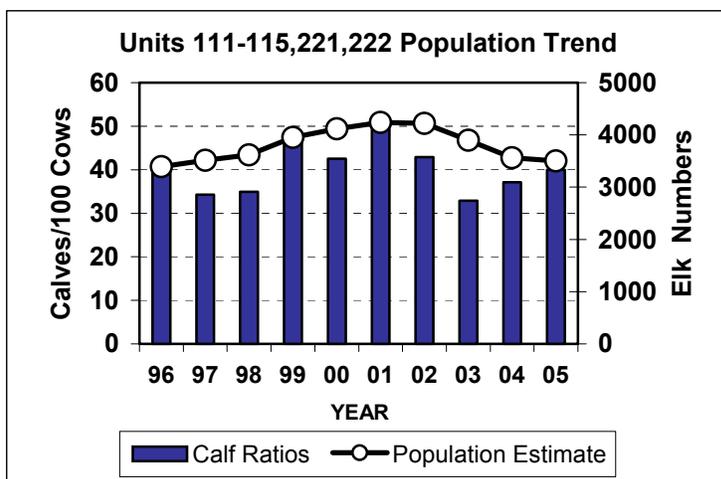


Figure 1. Elk population trends in Eastern White Pine and Northern Lincoln Counties.

some areas elk were pushed down into the pinyon/juniper belt and were scattered into smaller groups that were difficult to locate. These conditions made it especially difficult to adequately sample bulls. In other areas, cow/calf groups were found in low, semi-open country where they were more easily found. In all likelihood, the increased recruitment observed in 2005 reflects the improved moisture and forage conditions that accompanied the 2004 summer and fall.

Habitat

In contrast to the wetter years of 1997-98, precipitation levels during the past six years have averaged approximately 80% of average. Habitat conditions for elk have suffered through decreased water distribution and production of grasses and forbs. The average summer moisture received in 2004 brought short-term improvements. Forage quality remained high throughout the summer. Late summer green-up was widespread throughout the unit-group, especially in the south. Moisture received since 1 October 2004 has been the highest since the winter of 1968-69. Mountain snow packs are equally impressive and should contribute to improved water distribution in 2005. Good soil moisture should result in greatly improved habitat conditions for elk through the spring and early summer.

In contrast to the wetter years of 1997-98, precipitation levels during the past six years have averaged approximately 80% of average.

Population Status and Trend

At the present time, unit populations are being managed within the population objective ranges in Units 111-113 and 222. Elk populations remain below objectives in Units 114, 115, and 221. The population in Units 114-115 has expanded beyond 50% of the objective and exhibits good growth. In addition, immigration from Unit 113 likely continues, prompting the initiation of antlerless harvest in 2005 to temper growth. Computer model estimates, age data, survey data, and harvest data (the proportions of 6-point and better bulls) all point to continued high bull/cow ratios. The current population estimate incorporates a more realistic accounting of bulls in the population. Coupled with increased recruitment, the result is a 2005 prehunt population estimate that is similar to the 2004 estimate (see Figure 1 for recruitment and modeled population estimates). The abundant moisture received over the past few months should result in elevated recruitment in 2006. Quota recommendations will reflect the need to manage both the bull/cow ratio and unit-populations within the objectives contained in the White Pine County Elk Subplan and the Statewide Elk Species Management Plan. Tag quota recommendations are expected to increase for both bull and antlerless elk hunts.

ROCKY MOUNTAIN ELK

Units 131,132, White Pine, Grant and Quinn Canyon Ranges: Southern White Pine and Eastern Nye Counties

Report by: Mike Podborny

Seasons, Hunt Quotas and Harvest Results

The 2004 season was the tenth consecutive elk season held since elk hunting was reinstated in Unit 131 in 1995. Unit 132 was added to Unit 131 for the 2003-hunting season to allow hunters to pursue bulls that are moving between units. There were four bulls harvested during all hunts in 2004. Poor hunting success (33%) was again experienced during the any legal weapon season. For complete hunting season results, please refer to the Elk Harvest Tables in the Appendix Section.

There were three additional elk mortalities in 2004. A vehicle killed a female calf on Highway 50 near Little Antelope Summit and two six-point bulls were identified as natural mortalities.

Survey Data

A herd composition survey by helicopter was conducted in January 2005. There were 110 elk classified during the survey as 13 bulls, 72 cows, and 25 calves. This was a record sample with the majority of elk classified in unit 131 and one small group of six elk classified in unit 132. The resulting age and sex ratio of the survey was 18 bulls/100 cows/35 calves. Fifty-five elk were classified in 2004 as 13 bulls, 32 cows, and 10 calves. The ratio was 41 bulls/100 cows/31 calves. The previous five-year-average (2000-2004) ratio was 33 bulls/100 cows/39 calves.

A radio-collared cow that was released in the Cherry Creek Range, Unit 121, in January 1999 moved into the White Pine Range in 2002. In 2004 this cow again summered high in the White Pine Range and wintered near Currant Summit.

Habitat

Two wildlife water developments received heavy use by elk in 2004. The Forest Service will construct a third development in 2005 with funding from the Rocky Mountain Elk Foundation. A livestock permittee raised concerns about elk use on riparian areas in the Cottonwood drainage above Illipah Reservoir. No elk damage was documented due to the timing of the complaint and other complicating factors. The area will be monitored in 2005 to determine the use of elk on public and private lands to determine if Elk Incentive tags or other actions are warranted.

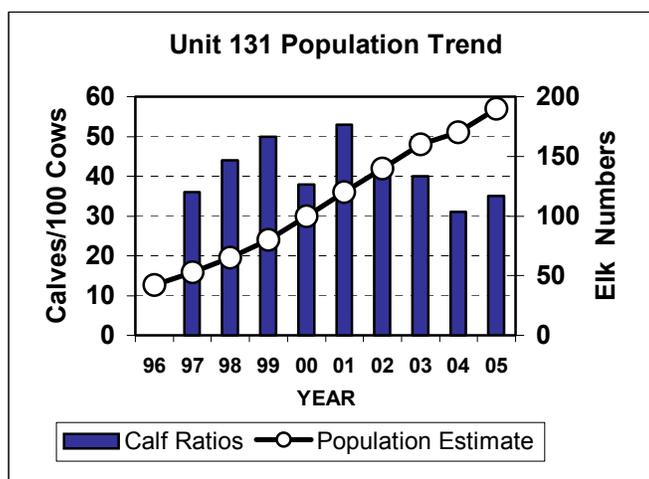


Figure 1. White Pine Range elk population trends.

An alfalfa field was fenced to exclude elk on Ellison Creek after 40 elk were using the field in September. This was the first depredation complaint received in unit 131 involving elk. A payment was also made to the landowner for the elk use prior to the fence being built.

Population Status and Trend

The 2005 sample of 110 elk classified was the highest for this unit group. The elk herd in unit 131 continues to grow with an estimated population of 190 elk (Figure 1). Mature bulls are available for

harvest however the small population of elk scattered over a large area with thick tree cover has made hunting difficult. The population objective in the White Pine County Elk Management Plan for Unit 131 is 300 elk. The goal of the plan is to allow the population to grow to the target level or until elk use monitoring shows negative impacts to the habitat. Antlerless hunts will be implemented when the elk population reaches approximately 250 animals in order to slow herd growth. Eventually, an antlerless harvest will be implemented to maintain the elk herd at the target level. Bull quotas will be set to achieve a post-season bull ratio of 40 bulls/100 cows. It is hoped that the revision of the White Pine County Elk Management Plan, which began in December 2003, will set management direction for Unit 132 which currently is under no elk management plan.

ROCKY MOUNTAIN ELK

Units 161 - 164: North-Central Nye and Southern Lander and Eureka Counties

Report by: Tom Donham

For hunting season results, please refer to the Rocky Mountain Elk Harvest Tables in the Appendix Section.

Survey Data

Aerial herd composition surveys were conducted in Management Area 16 during January 2005. During the survey period, a near record total of 326 elk was observed, second only to a total of 344 animals observed during the 1999 survey. The 2005 sample included 52 bulls, 195 cows, and 79 calves for an observed ratio of 27 bulls/100 cows/41 calves. Survey conditions were very favorable compared to those experienced in recent years. Substantial snow accumulations at higher elevations, as well as cool temperatures, resulted in cow/calf groups concentrating in comparatively large groups at low elevation. These same conditions, however, made locating bull elk more difficult than is typical for the area. Above normal snow accumulations in the favored winter haunts of small groups of mature bulls forced them into thick tree cover at lower elevations, resulting in a somewhat low observed bull ratio. The observed calf ratio of 41 calves/100 cows is an improvement over calf ratios observed during the past three years, and should result in an increasing trend in the population if conditions remain favorable.

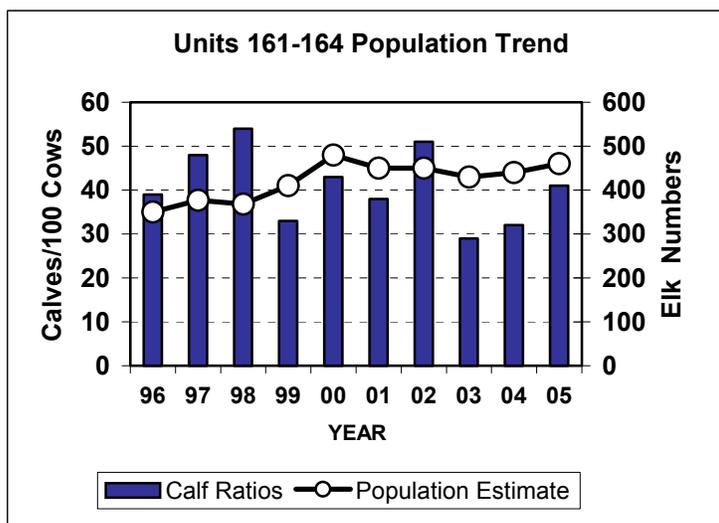


Figure 1. Monitor Range elk population trends.

The previous aerial survey was conducted in January of 2004 and resulted in the classification of 153 elk. The sample included 49 bulls, 80 cows, and 24 calves for a ratio of 61 bulls/100 cows/30 calves. Survey conditions were extremely poor during the 2004 survey period due to old and patchy snow in conjunction with warm temperatures. The disparity in sample sizes between the 2004 and 2005 surveys make the effects of ground and climatic conditions on survey success very apparent.

Population Status and Trend

The Unit 161-164 elk herd, which primarily inhabits the Monitor Range of Unit 162, increased steadily following an initial release of 50 animals in January 1979. The inaugural season in Unit 162 took place in 1984. Tag quotas remained conservative from 1984 to 2000, allowing the Monitor herd to expand. The 2000-2001 hunting season saw a large increase in tag quotas in a successful effort to remain in

compliance with the Central Nevada Interagency Elk Agreement target population level. In January 2004, a newly drafted Central Nevada Elk Plan (CNEP) was completed and approved by the State of Nevada Board of Wildlife Commissioners. The CNEP provides elk management direction for both Management Areas 16 and 17. Through the CNEP planning process, new population objectives have been established in Area 16, once again allowing for population growth. Recent reductions in tag quotas, particularly antlerless tags, reflect this change in harvest strategy. Reduced antlerless harvest in conjunction with recent favorable climatic conditions is expected to result in an increasing trend in the Management Area 16 elk population.

The population model for Unit Group 161-164 predicts a pre-hunt adult population estimate of approximately 460 animals.

ROCKY MOUNTAIN ELK
Unit 231, Wilson Creek Range: Lincoln County
Report by: Mike Scott

For hunting season results, please refer to the Elk Harvest Tables in the Appendix Section.

Survey Data

Aerial surveys were conducted during February 2005 in Unit 231 and resulted in the classification of 285 elk. These included 88 bulls, 134 cows, and 63 calves, for a ratio of 66 bulls/100 cows/47 calves. Of the 88 bulls classified, 57% were classified as spikes to four-points. The previous survey was conducted during January 2004, resulted in the classification of 262 elk. These included 69 bulls, 123 cows, and 70 calves, for a ratio of 56 bulls/100 cows/57 calves.

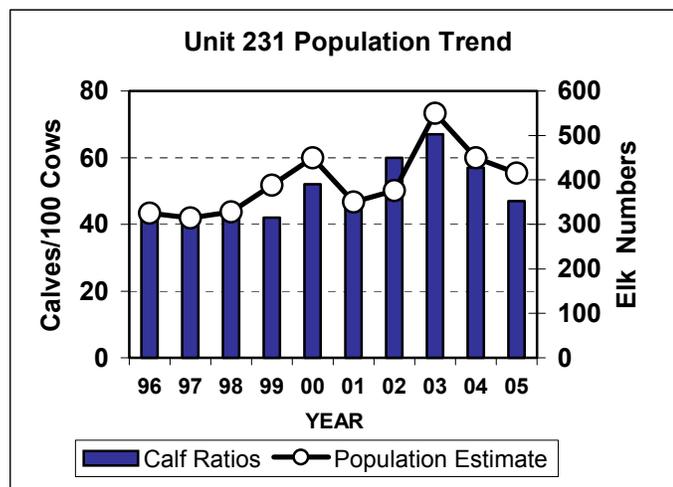


Figure 1. Wilson Creek Range elk population trends.

Habitat

The President of the United States recently signed the Lincoln County Land Act of 2004, into law. This act established fourteen wilderness areas in Lincoln County, consisting of over 750,000 acres. The act also authorizes Off-Highway Vehicle (OHV) trails, utility corridors, and Open Space Parks. This act may eventually result in water being transferred from Lincoln County to southern Lincoln and Clark Counties. In addition, the federal government has proposed a land withdrawal across Lincoln County for the Department of Energy Rail Line Corridor. Furthermore, private companies have targeted areas in Lincoln County for placement of wind-generated power structures. These changes, combined with continued pinyon-juniper expansion into decadent stands of sagebrush, and unchecked feral horse numbers, will likely result in continued habitat degradation for Lincoln County.

Elk are often found in or near the various burns throughout Unit 231, where forage is available. Pinyon/juniper invasion throughout much of Area 23 limits available forage for elk. Several large burns have occurred since 1999, which have increased available forage for elk. Elk depredation continues to occur in Unit 231. The Division is using various methods for dealing with depredation problems, including elk incentive tags, elk damage payments, elk depredation hunts, fencing private lands, and hazing.

Population Status and Trend

The elk population in unit 231 is subject to large fluctuations from elk migrating to the area from both Utah and Area 22. Several large burns along the Utah border may be attracting elk into the area. Radio

telemetry has shown that elk routinely cross back and forth over the Nevada-Utah border. This may be exacerbated by the pressure placed on the elk population due to the number of elk hunting seasons. The Utah Division of Wildlife Resources has expressed an interest in running elk seasons concurrently with Nevada elk seasons in order to try to increase elk harvest. According to the *Lincoln County Elk Management Subplan*, which was approved by the Wildlife Commission in 1999, the Nevada Department of Wildlife will maintain the number of elk in the area at approximately 350 animals. Quotas recommended for the 2005 season will reflect the Departments' commitment to maintain the elk population near this level. During the 2004-05 elk seasons, a total of 111 elk was harvested from Unit 231. The computer-generated population estimate for 2005 is 415 animals, compared to 450 in 2004.

ROCKY MOUNTAIN ELK

Unit 241-242, Delamar and Clover Mountains: Lincoln County

Report by: Mike Scott

For hunting season results, please refer to the Elk Harvest Tables in the Appendix Section.

Survey Data

Surveys were conducted during February 2005, and resulted in the classification of 31 elk in the Clover and Delamar Ranges. These consisted of 7 bulls, 23 cows, and 8 calves, which results in a ratio of 44 bulls / 100 cows / 50 calves.

Habitat

The Lincoln County Elk Management Plan Technical Review Team has been unable to agree on a population objective for Area 24, so NDOW will handle elk depredation complaints should they arise in this area and hope that BLM will complete the habitat projects they have committed to do. Although the long-term population objective is 800 elk in Area 24, NDOW has no choice but to try to maintain low elk numbers in the area, until BLM agrees to a short-term population objective. The BLM will not agree to a short-term objective until additional forage is made available. Area 24 probably has the highest density of pinyon-juniper trees in Lincoln County, making the potential for elk habitat projects nearly unlimited. The Ely District of the BLM is currently revising their Resource Management Plan. Upon completion, it is possible that some habitat enhancement projects could be completed and elk numbers allowed to increase. NDOW is committed to maintaining low elk numbers in the area until habitat enhancement projects are completed. Until then, sportsmen who draw elk tags for Area 23 will be able to hunt in Units 241 and 242.

Population Status and Trend

The population estimate for Area 24 is 60 animals. This estimate is derived from very low survey numbers, which makes the population difficult to model.

ROCKY MOUNTAIN ELK

Unit 262, Spring Mountains: Clark and Southern Nye Counties

Report by: Patrick J. Cummings

For hunting season results, please refer to the Rocky Mountain Elk Harvest Tables in the Appendix Section.

Survey Data

In September 2004, a 3.3-hour aerial survey yielded a sample of 55 elk comprised of 6 bulls, 36 cows and 13 calves (17 bulls/100 cows/36 calves). The proportion of calves to cows encountered during the 2004 aerial survey exceeded like proportions in each of four preceding surveys (Figure 1). As in past years, the brief aerial survey was focused in the area around the Cold Creek Community. The sample was the third smallest obtained since the 1984 release of 80 elk.

A year earlier, 52 elk were observed during a 3.9-hour aerial survey. The 2003 sample was comprised of 10 bulls, 39 cows and 3 calves (26 bulls/100 cows/8 calves). The smallest sample of 29 elk was obtained in 2002.

Unlike earlier aerial surveys, in four surveys conducted since January 2002, elk tended not to be encountered in the interior of the McFarland Burn. Rather, elk were observed on the margins of the burn, and in or near pinyon-juniper woodland.

Habitat

Severely degraded vegetative conditions on the McFarland Burn were noted in four aerial surveys conducted between 2002-04, and likely the reason fewer elk have been encountered in the area. Degraded habitat is largely the result of a serious over population of horses superimposed on effects of drought conditions in three successive years (2000-02). The number of horses observed in the Cold Creek area has consistently far exceeded the AML (Appropriate Management Level) of 26 horses set by the United States Forest Service (USFS) as written in the General Management Plan for the Spring Mountains National Recreation Area (SMNRA).

In September 2004, incidental to the aerial elk survey, 68 horses were observed. In 2003, 146 horses were encountered. In 2002, aerial elk surveys were conducted in January and October during which conservative counts of horses yielded totals of 159 and 106, respectively.

Despite above average precipitation receipts since early 2003, elk habitat on McFarland Burn remains poor to marginal due to reduced presence of preferred forage species.

Another factor that has likely influenced elk distribution has been increased off-highway vehicle (OHV) use. In recent years, weekend recreational use of OHVs in the Cold Creek area and on the McFarland Burn has increased substantially. The USFS does not have an OHV policy that would benefit elk in the SMNRA.

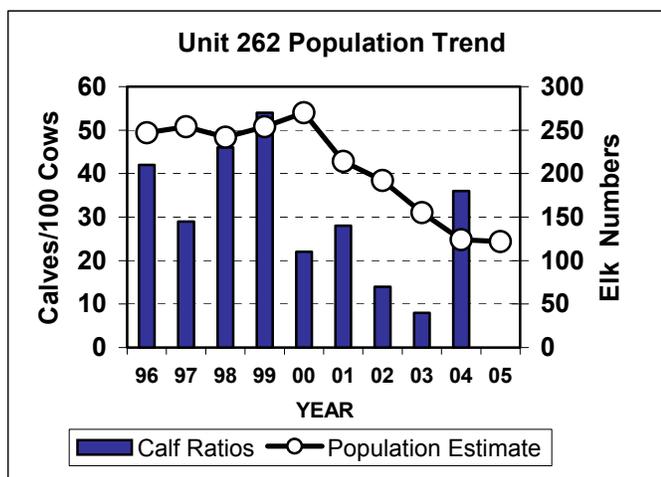


Figure 1. Population trends for Spring Range elk herd.

Elk in Unit 262 have existed on a low nutritional plane limiting reproduction and recruitment. In addition, increasing levels of motorized recreation have served to harass and displace elk in the Spring Mountains.

The population estimate for the elk herd inhabiting the Spring Mountains is 120, and approximates the estimate derived last year (Figure 1). Calf recruitment in recent years has been below levels necessary to maintain the population. Elk habitat quality throughout this unit is marginal. Formerly, under ideal conditions marked by lower horse numbers and normal precipitation receipts, the McFarland Burn afforded early seral, quality forage necessary for maintenance, growth and reproduction. In the near future, meaningful efforts to improve elk habitat must entail removal of excess horses and completion of habitat improvements. Elk habitat in the Spring Mountains can be enhanced through seeding areas recently burned and by increasing water availability.

DESERT BIGHORN SHEEP

DESERT BIGHORN SHEEP

Units 044, 182, East and Stillwater Ranges: Pershing and Churchill Counties

Report by: Jason Salisbury

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

Bighorn composition surveys were conducted on 8 September 2004. A sample of 24 bighorn was classified in Unit 182, the Stillwater Range. The 2004 sample is a decline of 56% from the 2003 sample of 54 animals. The sample generated a computed ratio of 21 rams/100 ewes/35 lambs. Surveys were conducted in Unit 044, the East Range and resulted in the classification of 8 bighorns. This resulted in the sex/age ratio of 20 rams/100ewes/40 lambs. Between 1999 and 2002 observed lamb ratios ranged between 40 and 45 lambs per 100 ewes (Figure 1).

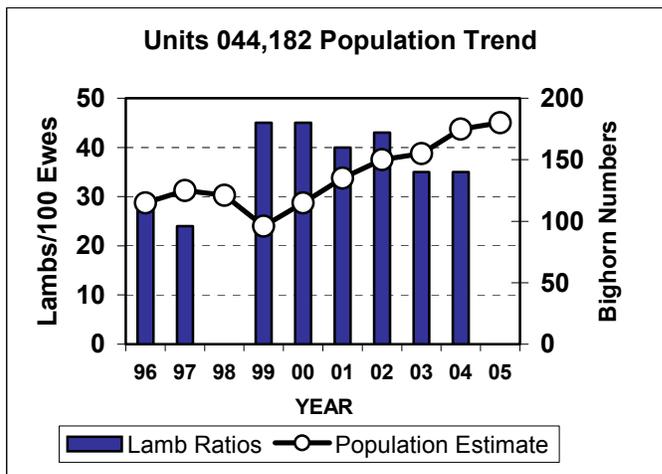


Figure 1. Observed lamb ratios and population trend of the Stillwater and East Range bighorn herds.

Population Status and Trend

The desert bighorn population in the Stillwater Range seems to be static. There is considerable herd movement between the southern part of the East Range and the northern part of the Stillwater Range. The East Range population seems to be stable at this time. Hunters this year reported seeing over 100 animals on their hunts. The low lamb ratio observed is of concern. Even though the sample size was small it still raises concerns about why production is so low in this herd. The population estimate for the Stillwater/East Range herd is 180 animals.

DESERT BIGHORN SHEEP

Unit 134, Pancake Range: Nye County

Report by: Tom Donham

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

No survey was conducted during 2004 in Unit 134. During the last composition flight, which occurred in September 2003, a total of 266 bighorn sheep was observed in Unit 134. The sample consisted of 90 rams, 141 ewes, and 35 lambs for ratios of 64 rams/100 ewes/25 lambs. The observed lamb ratio of 25 lambs/100 ewes was well below the long-term average of 45, and was one of the lowest observed lamb ratios on record. The next survey is scheduled to occur in the fall of 2005.

Population Status and Trend

The Unit 134 desert bighorn sheep population was re-established in 1984 through the release of 26 animals captured in southern Nevada. Since that initial release, the herd has done well and has served as a source of transplant stock on 3 occasions. During capture operations conducted in 1996 and again in 1998, a total of 55 animals were trapped and relocated. Following the 1998 capture, the herd experienced a decline and further operations were not considered for some time. During October 2003 the Pancake Range was again used as a source of transplant stock. A total of 23 sheep was successfully captured in Unit 134 comprised of 2 rams, 16 ewes, and 5 lambs. These sheep were released into the East Range, Unit 182, located in Pershing County.

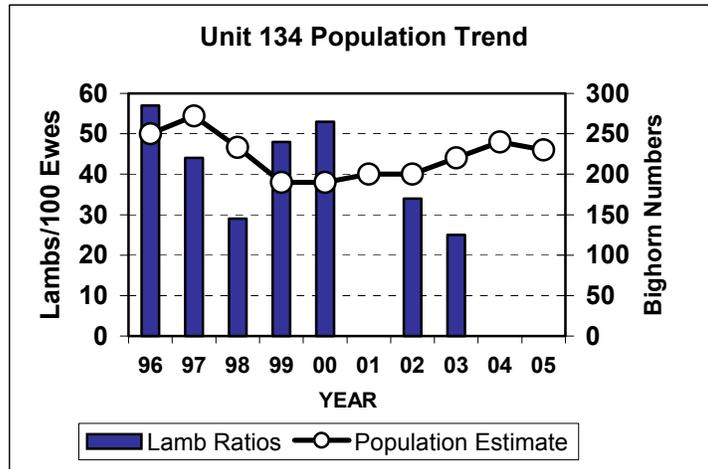


Figure 1. Observed lamb ratios and population trend of the Pancake Range bighorn sheep herd.

Following an initial decline experienced during the late 1990's, the sheep population in Unit 134 exhibited a steadily increasing trend. The herd experienced poor production in 2003, and numbers likely declined due not only to reduced production, but also due to the removal of 23 animals for relocation. The population estimate illustrated in Figure 1 increased despite an actual reduction in population size because it became apparent during the 2003 survey that the herd had been previously underestimated. Presently, the population in Unit 134 is considered to be experiencing a slightly decreasing trend. The population model for Unit 134 predicts a pre-hunt adult male population of approximately 90, and an overall population estimate of approximately 230 adult animals.

**DESERT BIGHORN SHEEP
Unit 161, Toquima Range: Northern Nye County
Report by: Tom Donham**

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

During a composition flight conducted on 8 September 2004, a total of 202 sheep was observed. Of the 202 animals observed, a sample of 165 was classified. The sample included 72 rams, 73 ewes, and 22 lambs for ratios of 99 rams/100 ewes/30 lambs. Although an inflated ram ratio due to recent trapping operations was expected, the observed ram ratio of 99 is also due to survey bias. The 35 animals that escaped formal classification were observed to be predominantly ewes. The observed lamb ratio of 30 represents the lowest observed lamb ratio on record. Survey flights scheduled for the fall of 2005 should help assess what type of impacts this may have on the population, as well as determining whether production will recover due to recently improved climatic conditions or whether production may be being influenced by herd density or other factors. The previous aerial survey was conducted in September 2003 and resulted in the classification of 222 sheep. The sample included 69 rams, 106 ewes, and 47 lambs, for a ratio of 65 rams/100 ewes/44 lambs.

Population Status and Trend

The Unit 161 desert bighorn sheep population in the Toquima Range was established through the release of 22 sheep in 1982 and 4 in 1983. During 2002 and again in 2003, the herd served as transplant stock. A combined total of 50 sheep was captured for relocation during the 2 projects. The animals were released in the Clan Alpine and Tobin Ranges of Churchill and Pershing Counties, respectively.

Aerial survey data collected since the initial releases in the Toquima Range indicate that the population has increased more rapidly and to a higher level than was originally anticipated. Currently, due to reduced production and recent trapping projects, the herd is

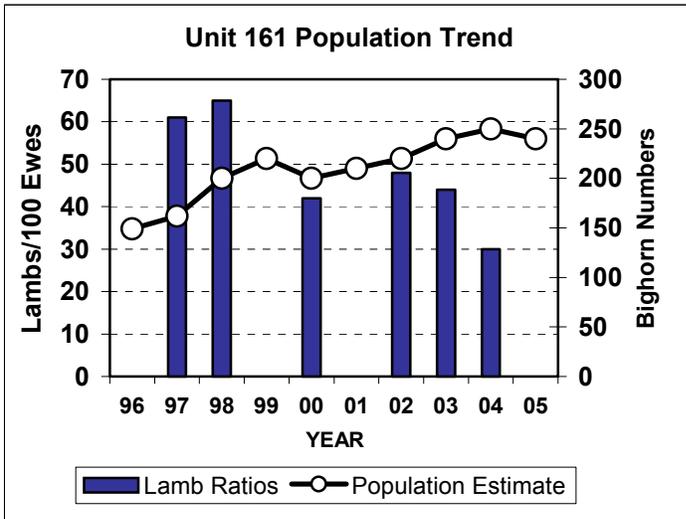


Figure 1. Observed lamb ratios and population trend of the Toquima Range bighorn sheep herd.

experiencing a slight decreasing trend. The population model for Unit 161 predicts a pre-hunt adult male population of approximately 100 and an overall population estimate of approximately 240 adult animals.

**DESERT BIGHORN SHEEP
Unit 163, Hot Creek Range: Nye County
Report by: Tom Donham**

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

The most recent aerial composition survey was conducted on 8 September 2004. A total of 35 sheep was classified which included 7 rams, 24 ewes, and 4 lambs for ratios of 29 rams/100 ewes/17 lambs. The observed lamb ratio represents the lowest on record. The previous survey occurred in 2002 and resulted in the classification of 72 sheep. The sample included 20 rams, 42 ewes, and 10 lambs, for ratios of 48 rams/100 ewes/24 lambs.

Population Status and Trend

The Unit 163 desert bighorn sheep population was re-established through transplants made in 1994 and 1995. Following the initial expansion of the herd, the population appeared to stabilize (Figure 1). Since that time, data indicate that the herd has suffered reduced production and recruitment resulting in a decreasing trend. This trend is most likely due to drought conditions experienced most years since the initial releases. A significant improvement in climatic conditions resulting in the recovery of critical habitat must occur in order for this herd

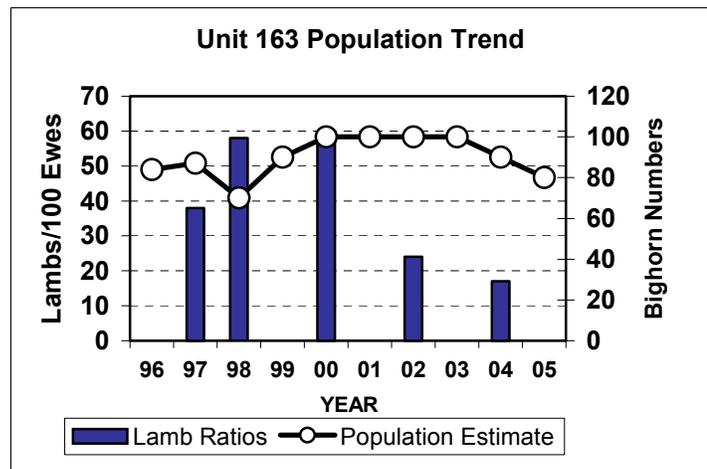


Figure 1. Observed lamb ratios and population trend of the Hot Creek Range bighorn sheep herd.

to stabilize and begin increasing once again. The population model for Unit 163 predicts a pre-hunt adult male population of approximately 30 rams and an overall population estimate of approximately 80 adult animals.

DESERT BIGHORN SHEEP
Unit 173, Toiyabe Range: Northern Nye County
Report by: Tom Donham

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

No survey was conducted during the reporting period. The last aerial survey conducted in Unit 173 took place in September 2003 and resulted in the classification of 86 sheep. The total included 20 rams, 47 ewes, and 19 lambs for a ratio of 43 rams/100 ewes/40 lambs. This survey was conducted entirely in the southern portion of the Toiyabe Range.

Population Status and Trend

Historically, sheep were plentiful in the Toiyabe Range. Due to human impacts, numbers gradually declined to an estimated low of approximately 50 animals. In 1983 and 1984, a total of 21 sheep was transplanted from southern Nevada in hopes of augmenting this population. During the summer of 1993, an additional release of 9 rams from southern Nevada took place. In 1988, the sheep hunting season was re-established in Unit 173, after having been closed since 1969.

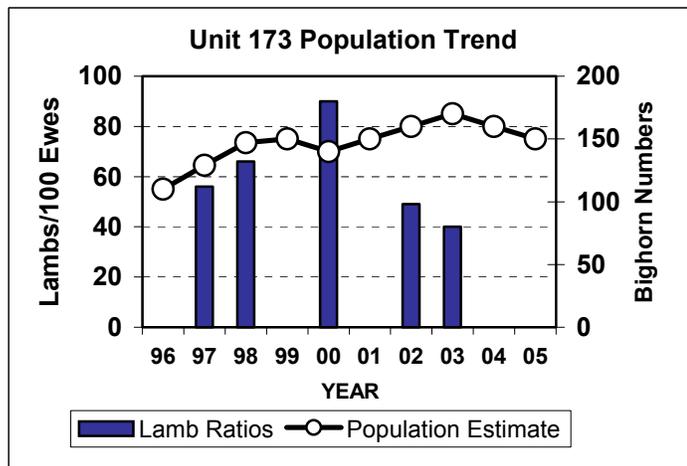


Figure 1. Observed lamb ratios and population trend of the Toiyabe Range bighorn sheep herd.

In response to the augmentations, this herd has slowly expanded and now occupies habitat throughout the eastern portions of the Toiyabe Range. The southeastern portion of the Toiyabe Range supports the largest segment of the population, and recently an increase in depredation on private land has been occurring in the area. Drought conditions and the associated impacts to habitat are likely the primary reasons for the increase in depredation. Presently, the population appears to be experiencing a slight decline due to recent extremely dry conditions. The 2003 population model for Unit 173 predicts a pre-hunt adult male population of approximately 50 and an overall population estimate of approximately 150 adult animals.

DESERT BIGHORN SHEEP
Unit 181, Fairview Peak, Slate Mountain, and Sand Springs Range: Churchill County
Report by: Jason Salisbury

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

On 12 September 2004 an aerial survey was conducted in Unit 181 and resulted in the classification of 83 sheep. This was a record survey for this unit group. The composition ratio for the survey was 58 rams/100 ewes/ 44 lambs.

Habitat

Consistent drought has plagued bighorn sheep in Unit 181. The Sand Springs Range located on the western edge of the unit has several springs that dried up last summer. Bighorns were forced to use 1 spring that would dry up during the day and partially recharge at night. Rush and grass canopy used to surround the spring, which lessened daily evaporation. Livestock grazing in the winter months have denuded any cover whatsoever. There are plans in the future to construct a pipe rail fence around the spring source and riparian area. By doing this we will prevent livestock from trampling and compacting this vital and crucial water source for the bighorns. The water development on the south end of the Sand Springs Range has yet to be used extensively by bighorn sheep. It is thought that the sheep may be discouraged to use it because of the fence design. Modifications will be made to make it more bighorn friendly. Water developments are badly needed in the Sand Spring Range to disperse the population into habitat that has both forage and escape cover.

Currently water developments within the BLM Carson District are not allowed. These issues must be addressed before the bighorns can reach their full potential and allowed to expand into readily available habitat.

Population Status and Trend

The Unit 181 desert bighorn sheep population estimate is now at 100 animals (Figure 1). The recruitment rate of 44 lambs per 100 ewes will enable the herd to continue an increasing trend. Possible water developments in the future will allow this population to increase and disperse. Older age class rams are still present in the population and will continue to offer hunters a quality experience.

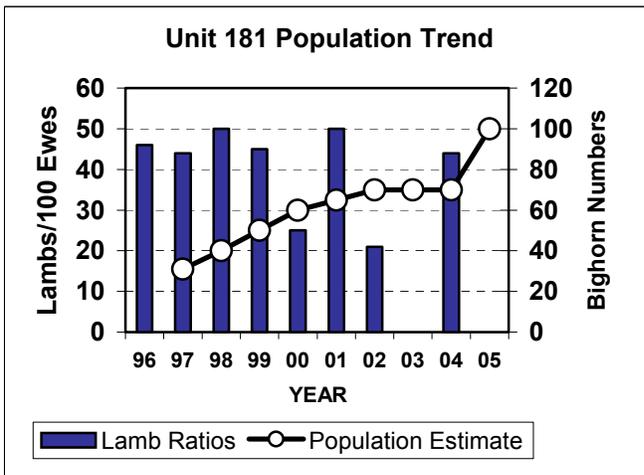


Figure 1. Observed lamb ratios and population trend for the Unit 181 bighorn herd.

DESERT BIGHORN SHEEP
Unit 183, Clan Alpine Range: Churchill County
Report by: Jason Salisbury

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

The aerial composition survey in the Clan Alpine Range of Unit 183 took place on 12 September 2004. A sample of 28 bighorn was classified with a computed ratio of 70 rams/100 ewes/50 lambs. This year's survey effort was shortened by excessive winds.

Population Status and Trend

This year's sample provided an

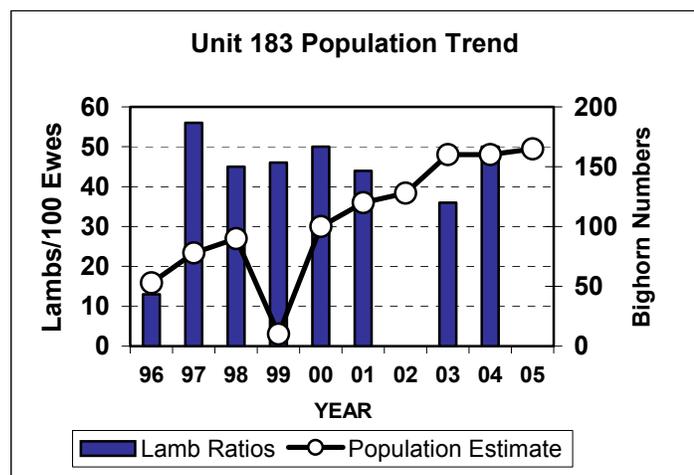


Figure 1. Observed lamb ratios and population trend of the Clan Alpine bighorn sheep herd.

insufficient number of animals to determine the productivity and recruitment levels for this population. The lamb recruitment rate for the past 5 years has averaged 40 lambs per 100 ewes. The average age of rams harvested has been increasing steadily. This year's average age of harvested rams was 6.8 years old. The Clan Alpine sheep herd population estimate is 170.

DESERT BIGHORN SHEEP
Unit 184, Desatoya Range: Churchill and Lander Counties
Report by: Jason Salisbury

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

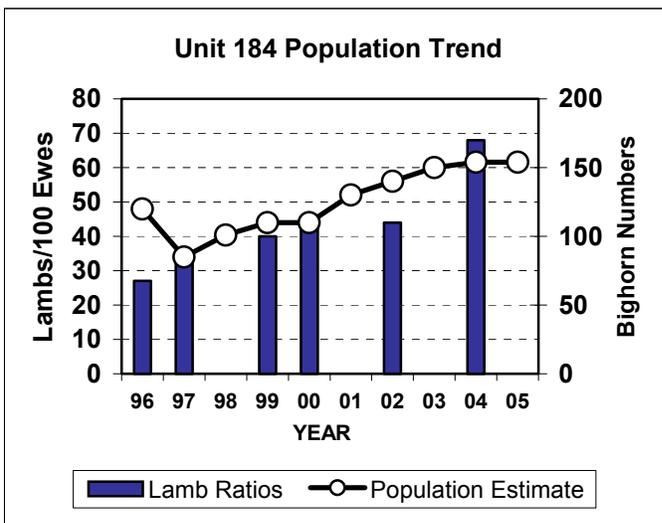


Figure 1. Observed lamb ratios and population trend of the Desatoya Range bighorn sheep herd.

Survey Data

On 12 September 2004, a composition survey was conducted in the Desatoya Range of Unit 184. A total of 111 bighorn was classified with a computed ratio of 54 rams/100ewes/68 lambs.

Population Status and Trend

This year's lamb recruitment rate of 68 lambs/100 ewes represents the highest ever-observed lamb ratio for Unit 184 (Figure 1). Lamb recruitment has averaged between 35 and 44 lambs per 100 ewes since 1997. The Desatoya bighorn population estimate will increase slightly to 160 animals.

DESERT BIGHORN SHEEP
Unit 202, Wassuk Range of Mineral County
Report by: Jason Salisbury

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

Aerial surveys were conducted in the Wassuk Range on 14 September 2004 and did not result in the classification of any animals during the 1 hour flight. A ground survey in November 2004 resulted in 18 bighorns being classified as 3 rams, 10 ewes and 5 lambs. The composition ratio for the sample was 30 rams/100 ewes/ 50 lambs.

Population Status and Trend

The bighorn sheep population trend in the Wassuk Range remains static. The 2005 bighorn population estimate for Unit 202 is 40 animals. There our future plans to augment the existing population to help bolster the population and increase genetic diversity.

DESERT BIGHORN SHEEP

Unit 205, Gabbs Valley Range, Gillis Range, Pilot Mountains: Eastern Mineral County

Report by: Jason Salisbury

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In September 2004, an aerial survey yielded a sample of 175 bighorn sheep. The sample included 56 rams, 79 ewes and 42 lambs (71 rams/100ewes/53 lambs). The lamb ratio of 53 lambs/100 ewes is well above the 5-year average of 41 (Figure 1). Forty one percent of the rams encountered were over 6 years old.

Population Status and Trend

The 2005 desert bighorn sheep population estimate is 260 animals, and represents a slight increase from last year. The population will continue to grow with lamb ratios exceeding 50. Older age class rams are still prevalent in the population and will continue to provide hunters with a quality hunt.

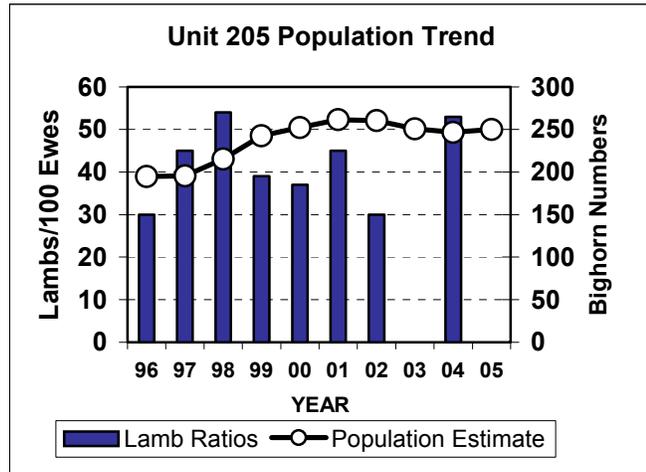


Figure 1. Observed lamb ratios and population trend of the Gabbs Valley Range, Gillis Range and Pilot Mountain bighorn sheep herds.

DESERT BIGHORN SHEEP

Unit 206, Excelsior Range: Mineral County

Report by: Jason Salisbury

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

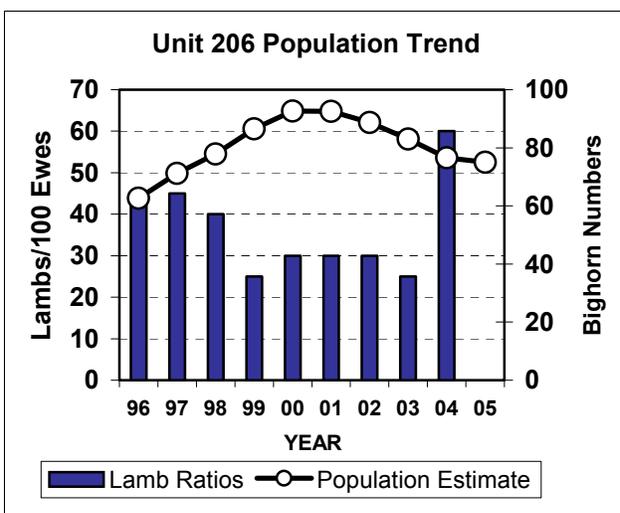


Figure 1. Observed lamb ratios and population trend for Excelsior Range bighorn herd.

Survey Data

Aerial surveys conducted in September 2004 resulted in the classification of 40 bighorn sheep. The total included 14 rams, 17 ewes and 9 lambs for a ratio of 82 rams/100 ewes/60 lambs.

Habitat

The water development located in the Excelsior Range is not functioning properly. It is scheduled for replacement sometime in the future. Water development potential exists in the surrounding mountain ranges including the Candalaria Hills, Miller Mountain, and the western portion of the Excelsior Mountains. Currently the BLM Carson District is not allowing water developments in their region.

The issue of water developments need to be addressed so the bighorn sheep herd can expand into the habitat that is available to them.

Population Estimates and Trend

The population estimate for Excelsior Range is currently 70 animals. The bighorn population trend is static and lamb ratios for the past 5 years are at or below what is considered maintenance level of recruitment (Figure 1). This year's lamb ratio of 60 lambs per 100 ewes may result in an increasing population trend.

DESERT BIGHORN SHEEP

Unit 211, Monte Cristo Range, Silver Peak Range, and Volcanic Hills: Esmeralda County

Report by: Tom Donham

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Hunt Unit Changes

Beginning in 2005, Unit 211 will be split into 2 separate desert bighorn sheep hunting areas. Unit 211A is that portion of Hunt Unit 211 north of U.S. Hwy 95, and is comprised of the Monte Cristo Range. Unit 211B is that portion of Unit 211 south of U.S. Hwy 95, and is comprised of the Silver Peak Range and the Volcanic Hills.

Survey Data

During a composition flight conducted on 9 September 2004, a total of 162 sheep was classified. The survey included the Volcanic Hills, Silver Peak Range, and Monte Cristo Range. Ratios from the sample were 70 rams/100 ewes/72 lambs. A total of 50 sheep was observed in the Silver Peak/Volcanic Hills portion of the survey area including 17 rams, 19 ewes, 14 lambs. While a total of 112 sheep was observed in the Monte Cristo Range including 30 rams, 48 ewes and 34 lambs. The previous aerial survey was conducted in September 2002 and resulted in the classification of 85 sheep with a ratio of 53 rams/100 ewes/44 lambs (Figure 1). Surveys were only conducted in the Monte Cristo Range and a small portion of the Silver Peak Range during the 2002 period.

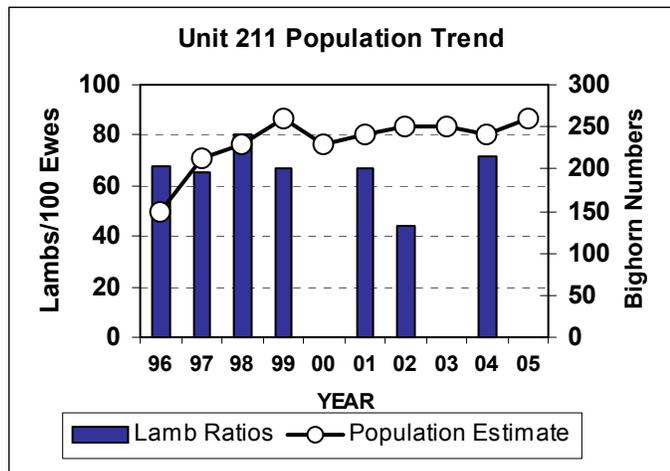


Figure 1. Observed lamb ratios and population trend of the Monte Cristo and Silver Peak Range bighorn sheep herds.

Habitat

During the spring 2004, 2 existing wildlife water developments in the Silver Peak Range were completely rebuilt. A third water development is schedule to be rebuilt in the near future. In addition, construction of a new water development is scheduled to take place in the Monte Cristo Range during the spring 2005.

Population Status and Trend

Historically, survey data and random observations indicated that sheep movement regularly took place between the Monte Cristo Range and the Silver Peak Range. Currently, these ranges appear to support distinct populations with very little if any interchange. Regular movement between the Silver Peak Range and the Volcanic Hills does occur however. The most recent observed lamb ratios indicate both of these

populations experienced very good production that should result in an increasing trend. The combined population model for Unit 211 predicts a pre-hunt adult male population of approximately 100 and an overall population estimate of approximately 260 adult animals (Figure 1, previous page).

DESERT BIGHORN SHEEP
Unit 212, Lone Mountain: Esmeralda County
Report by: Tom Donham

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

No survey was conducted during this reporting period. The next composition flight is scheduled to take place during the fall 2005. The previous aerial survey was conducted in September 2003 when a total of 73 sheep was classified. The total included 20 rams, 30 ewes, and 23 lambs for a ratio of 67 rams/100 ewes/77 lambs.

Population Status and Trend

Historical information indicates that Lone Mountain has continually supported bighorn sheep since the earliest recorded observations. The population undoubtedly suffered due to early unregulated hunting associated with the areas initial mining boom during the early 1900's, but the rugged inaccessible nature of much of Lone Mountain served to protect the herd from complete extermination. This herd may have experienced another crisis during the prohibition era. It is well known that all of the accessible and available water sources on Lone Mountain were used for making whiskey during this period, which likely impacted the population as well. Having survived these threats, the population increased dramatically, and by the 1980's was estimated at over 200 animals. During the 1980's, the Lone Mountain population served as a source of transplant stock on 2 occasions. A combined total of 58 sheep was successfully captured in 1986, and 1988. Following the 1988 capture, the Lone Mountain desert bighorn sheep population experienced a sharp decline. After several years of remaining static at low levels, the herd has begun a slow but steady recovery. Currently, although numbers remain below historic levels, the herd appears to be stable to increasing (Figure 1). The population model for Unit 212 predicts a pre-hunt adult male population of approximately 55 and an overall population estimate of approximately 150 adult animals.

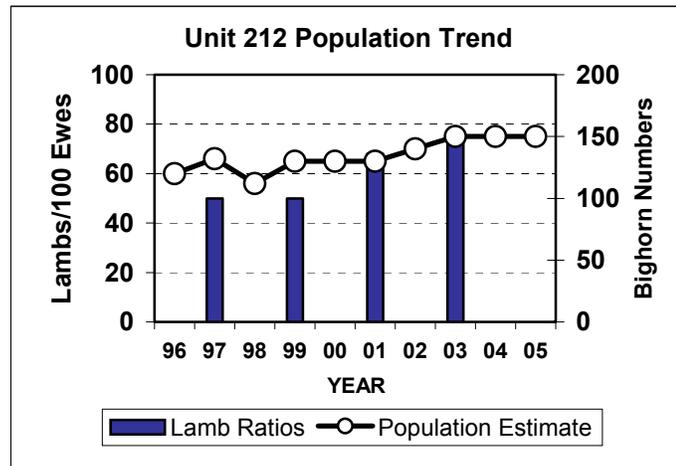


Figure 1. Observed lamb ratios and population trend of the Lone Mountain bighorn sheep herd.

DESERT BIGHORN SHEEP
Unit 252, Stonewall Mountain: Nye County
Report by: Tom Donham

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

No survey was conducted during 2004. The next scheduled survey should take place in 2005. The most recent aerial survey was conducted in September 2003 and resulted in the classification of 131 sheep. The total included 29 rams, 74 ewes, and 28 lambs for a ratio of 39 rams/100 ewes/38 lambs.

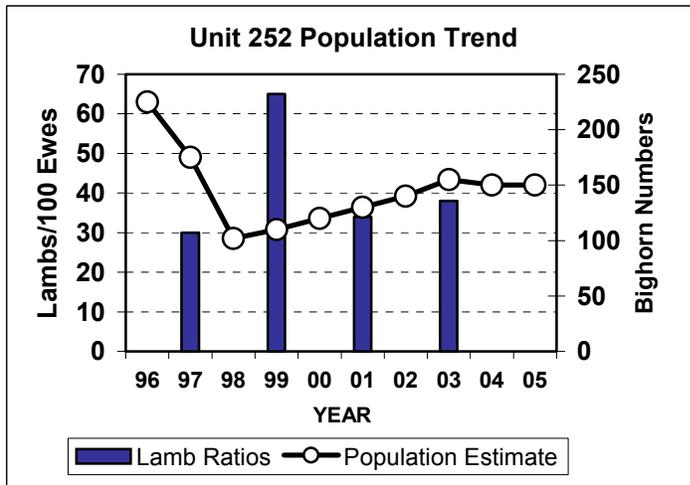


Figure 1. Observed lamb ratios and population trend of the Stonewall Mountain and Pahute Mesa bighorn herds.

Population Status and Trend

The Unit 252 desert bighorn sheep population was established through 3 transplant efforts conducted in 1975, 1978 and 1983. The Stonewall Mountain population experienced a major decline during 1996. This decline appeared to have been caused by a major dispersal of sheep out of the area, as opposed to a disease related die-off. The dispersal was in response to excessive feral horse and burros that had severely impacted the water sources and forage. In the time since the 1996 decline, the herd exhibited a steadily increasing trend (Figure 1). Currently the population appears stable. Sheep regularly move into and out of the Stonewall Mountain core area in response to various

climatic conditions that can influence the density, composition, and size of the population in this area during any given period. Presently, the population model for Unit 252 predicts a pre-hunt adult male population of approximately 55, and an overall population estimate of approximately 150 adult animals.

DESERT BIGHORN SHEEP

Unit 133, 245, Pahrnagat and Mount Irish Ranges: Lincoln County

Report by: Mike Scott

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

Aerial bighorn sheep surveys were conducted during September 2004. A total of 50 sheep was observed, including 11 rams, 24 ewes, and 15 lambs. This resulted in a ratio of 46 rams/100 ewes/ 63 lambs. Number of rams in each age class included: 3 yearlings, 2 two-year-olds, 3 four/five-year-olds, and 3 six-year olds or older.

Habitat, Population Estimate, and Trend

A total of 5 water developments have enhanced habitat for bighorns in this area. Pinyon-juniper invasion limits bighorn habitat in most of the higher elevations and is expanding into the lower elevations. A large portion of the Mount Irish Range in Unit 133 was designated as wilderness in the Lincoln County Lands Act of 2004. High lamb ratios observed over the past 2 years should result in an upward trend. The computer-generated population estimate for this area is approximately 80, compared to 70 in 2004.

DESERT BIGHORN SHEEP
Unit 221, South Egan Range: Lincoln County
Report by: Mike Scott

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

Aerial surveys were conducted during November 2004, in conjunction with mule deer surveys. The survey resulted in the observation of 30 sheep consisting of 11 rams, 24 ewes, and 2 lambs. This resulted in a ratio of 65 rams/100 ewes/12 lambs. Locations of observed groups of bighorn indicate that the sheep are scattered along a large portion of the South Egan Range.

Habitat, Population Estimate, and Trend

Habitat conditions for bighorns may be declining due to pinyon-juniper invasion at the higher elevations, which may be causing the sheep in the area to utilize other adjacent open habitats. Two of the water developments in the area are in need of replacement. The area has recently been designated as wilderness, which precludes most habitat projects from occurring. Low lamb ratios observed over the past 2 years indicates the population has probably not increased. The current computer-generated population estimate is 50 animals, similar to the 2004 estimate.

DESERT BIGHORN SHEEP
Unit 223, 241, Hiko, Pahroc, and Delamar Ranges: Lincoln County
Report by: Mike Scott

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

Aerial surveys were conducted in the Delamar and South Hiko Ranges during September 2004, and resulted in the classification of 65 sheep. These included 15 rams, 32 ewes, and 18 lambs for a ratio of 47 rams/100 ewes /56 lambs. Twenty-five of the 65 sheep observed were found in the Delamar Range.

Habitat

A large portion in the south end of the Delamar Range was designated as wilderness in the Lincoln County Lands Act of 2004. Construction of water developments in the Hiko and Delamar Mountains has expanded useable habitat for sheep, allowing the herd to increase it's geographic area. A total of 11 water developments have been constructed to date. A domestic sheep was removed from the north end of the Hiko Range in December 2004. A concerned citizen reported the estray animal to NDOW. The next survey in the area will likely be done in 2005.

Population Status and Trend

The current population estimate is 170 animals, similar to 2004 (Figure 1).

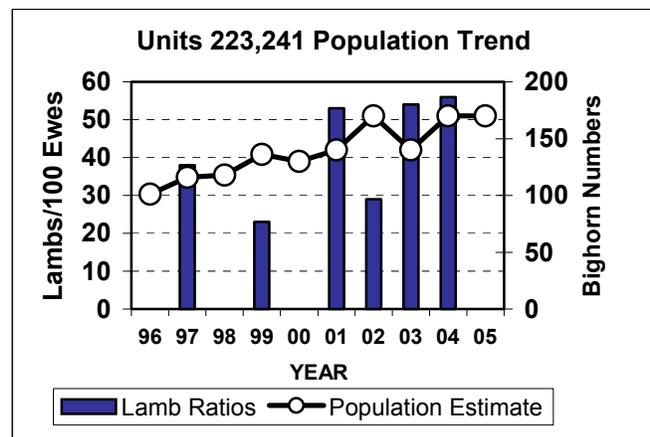


Figure 1. Observed lamb ratios and population trend of the Hiko, Pahroc, and Delamar Range bighorn sheep herds.

DESERT BIGHORN SHEEP
Unit 243, Meadow Valley Mountains: Lincoln County
Report by: Mike Scott

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

An aerial survey was conducted during September 2004, and resulted in the classification of 21 bighorns, consisting of 7 rams, 11 ewes, and 3 lambs. This results in a ratio of 64 rams / 100 ewes / 27 lambs. The previous survey was conducted in September 2003, and resulted in the classification of 37 sheep.

Habitat

Construction of water developments in the Meadow Valley Mountains should increase useable habitat for sheep, allowing animals to utilize this range on an annual basis. The Meadow Valley Range was designated as wilderness in the Lincoln County Lands Act of 2004. Large-scale development in Coyote Springs Valley is slated to occur in the near future. Golf courses and homes scheduled for development will likely cause an attractive nuisance by bighorn sheep. It is unknown at this time how this large development project will affect the bighorn population. Domestic sheep and goats found on nearby private lands present a constant threat to the bighorn population. An additional water development is being planned in an attempt to attract bighorns away from the increasing human population.

Population Status and Trend

This population has been depressed since the late 1980's when the population estimate was 175 animals. The population steadily declined into the mid-1990's and has remained at low numbers. However, the population shows promise to increase as a result of habitat improvements. The hunting season has been closed in this unit since the 1995 season, but was opened in combination with Unit 271 beginning in 2003. The ram harvested from the Meadow Valleys in 2004 marks the first ram harvested from this range since 1994. The current population estimate is 45 animals, compared to 40 in 2004.

DESERT BIGHORN SHEEP
Unit 244, Arrow Canyon Range: Northern Clark County
Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In September 2004, an aerial survey conducted in the Arrow Canyon Range and adjacent Battleship Hills yielded a sample of 79 bighorn sheep. The sample was comprised of 20 rams, 37 ewes and 22 lambs (54rams/100 ewes/59 lambs). The observed lamb-to-ewe ratio was among the highest on record (Figure 1). Bighorn sheep were encountered throughout much of the interior of the Arrow Canyon Range and on the northern portion of the Battleship Hills; alternatively, no sheep were observed on the northern and southern extensions of the Arrow Canyon Range.

In October 2002, the 49 sheep classified during an aerial survey consisted of 18 rams, 30 ewes, and 1 lamb (60 rams/100 ewes/3 lambs). The observed lamb to ewe ratio was the lowest since 1970.

Habitat

Bighorn sheep inhabiting the Arrow Canyon Range and Meadow Valley Mountains will likely be impacted by the impending construction and influences of Coyote Springs master planned community.

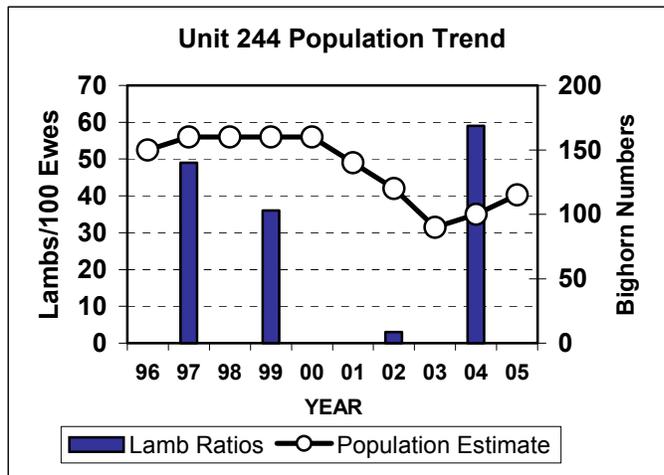


Figure 1. Observed lamb ratios and population trend of the Arrow Canyon Range bighorn sheep herd.

canyon complex in the Arrow Canyon Range. The west boundary of the quarry and that of tribal lands is 1.6 miles from Arrow Canyon #1 water development and 2.3 miles from Arrow Canyon #2 (rebuild). Quarrying limestone would entail drilling and blasting. Quarried limestone would be crushed and transported via conveyor belt to the proposed cement plant. Construction on the plant is expected to begin in 2006 and could be completed as early as 2007.

In January 2003, vandals extensively damaged Arrow Canyon #2 rendering it essentially nonfunctional. In February 2004, a new water development (rebuild of Arrow Canyon #2) was constructed 2.8 miles north of Arrow Canyon #1. To curtail potential vandalization to Arrow Canyon #1, a gated fence was constructed on the access road.

Population Status and Trend

In recent years (2000-02), severe drought conditions impacted the bighorn sheep population inhabiting the Arrow Canyon Range. Successive years of drought resulted in lowered recruitment and reduced survivorship. Most recently however, above-average precipitation receipts since early 2003 have resulted in favorable environmental conditions, and the herd has expanded.

Continued favorable conditions may facilitate establishment of ewe/lamb groups in the Battleship Hills. Recently constructed water catchments in the adjacent Meadow Valley Range will likely result in a commonly used movement corridor (across SR 168) between the mountain ranges.

The 2005 desert bighorn sheep population estimate is 115 animals, and reflects a notable increase relative to the estimate of 100 sheep derived last year.

DESERT BIGHORN SHEEP

Unit 253, Bare Mountain and Specter Range: Southern Nye County

Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In October 2004, a 2.9-hour aerial survey on Bare Mountain yielded a sample of 80 bighorn sheep. The sample was the largest recorded, and included 19 rams, 40 ewes and 21 lambs (48 rams/100 ewes/53

lambs). The previous aerial survey on Bare Mountain was conducted in October 2002, and yielded a sample of 57 bighorn sheep. The sample included 24 rams, 26 ewes and 7 lambs (92 rams/100 ewes/27 lambs).

In the Specter Range, a 3.8-hour aerial survey was conducted in October 2004, and yielded a sample of 84 bighorn Sheep. The sample was comprised of 29 rams, 52 ewes and 3 lambs (56 rams/100 ewes/6 lambs).

In 2003, 2 aerial surveys were conducted in the Specter Range. In April, a 3.4-hour survey yielded a sample of 91 bighorn sheep comprised of 34 rams, 51 ewes and 6 lambs (67 rams/100 ewes/12 lambs). In October, a follow-up 4.5-hour survey yielded a sample of 106 bighorn sheep comprised of 31 rams, 73 ewes and 2 lambs (42 rams/100 ewes/3 lambs).

In October 2002, a 4.1-hour aerial survey in the Specter Range yielded a sample of 102 bighorn sheep. The sample included 33 rams, 64 ewes and 5 lambs (52 rams/100 ewes/8 lambs).

Population Status and Trend

The Bare Mountain bighorn sheep population appears stable, and is estimated at 90. In the Specter Range however, events beginning at least as early as Fall 2002 suggest the population has been impacted by disease. Available evidence suggests bacterial pneumonia may be a factor in high mortality among lambs. Recruitment in 2003 and 2004 was negligible. Moreover, despite favorable environmental conditions since early 2003, the low proportion of lambs to ewes observed during the October 2004 aerial survey suggests few young animals will be recruited into the Specter Range herd in 2005.

The Specter Range bighorn sheep population is on a downward trend. Due to successive years of poor recruitment, it is estimated animals in age classes 1 through 3 comprise only 10% of the population. The population estimate for the Specter Range herd is 90.

DESERT BIGHORN SHEEP

Unit 261, Last Chance Range: Southeastern Nye County

Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In September 2004, a 4.1-hour aerial survey yielded a sample of 106 bighorn sheep. The sample was the largest recorded, and included 22 rams, 61 ewes and 23 lambs (36 rams/100 ewes/38 lambs). The lamb-to-ewe ratio was the highest recorded since 1995, and was the highest of 5 aerial surveys conducted within the last ten years (Figure 1).

In October 2002, a 5.1-hour aerial survey yielded a sample of 88 bighorn sheep. The sample included 22 rams, 49 ewes and 17 lambs (45 rams/100 ewes/35 lambs). Aerial surveys conducted in 2000 and 1999 reflected lamb ratios below that necessary to maintain a stable population.

Habitat

In 2003, bighorn sheep habitat improvements entailed construction of a 7th water development, and upgrade of an existing unit. The new water development is situated on the prominent ridge north of Pahrump. On the north end of the range, the upgrade of a unit involved added water storage capacity and installation of a steel apron.

A consequence of the expanding human population in the Pahrump Valley is habitat degradation resulting from dispersed recreational use of off-highway-vehicles (OHV), and in the recent past, permitted OHV races.

Population Status and Trend

The 2005 bighorn sheep population estimate is 120, and reflects an increase relative to the estimate derived last year. In recent years, the Last Chance herd exhibited evidence of a population decline. The apparent recent population expansion is likely due to favorable environmental conditions since early 2003. Based on population model simulation and aerial survey data collected in 2002 and 2004, older age-class rams appear under-represented.

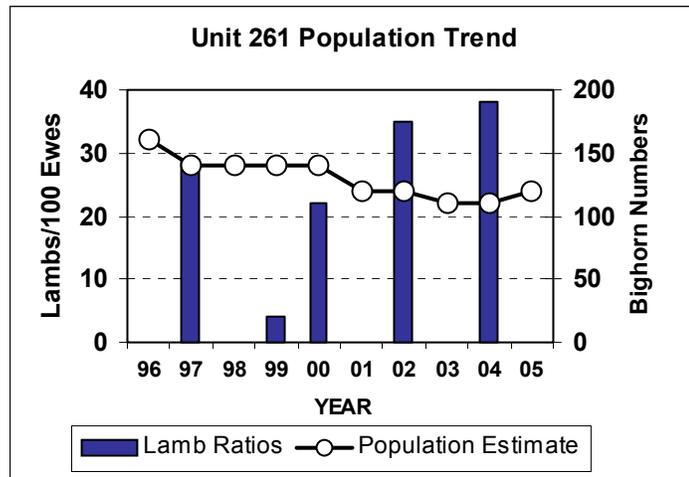


Figure 1. Observed lamb ratios and population trend for the Last Chance Range bighorn herd.

DESERT BIGHORN SHEEP

Unit 262, Spring Mountains (La Madre, Red Rock and South Spring Mountains) and Bird Spring Range: Western Clark County

Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In September 2004, an aerial survey conducted in the La Madre Ridge and Red Rock Escarpment areas yielded a sample of 69 bighorn sheep comprised of 22 rams, 34 ewes and 13 lambs (65 rams/100 ewes/38 lambs) (Figure 1). No portion of Unit 262 south of State Route 160 was surveyed in 2004.

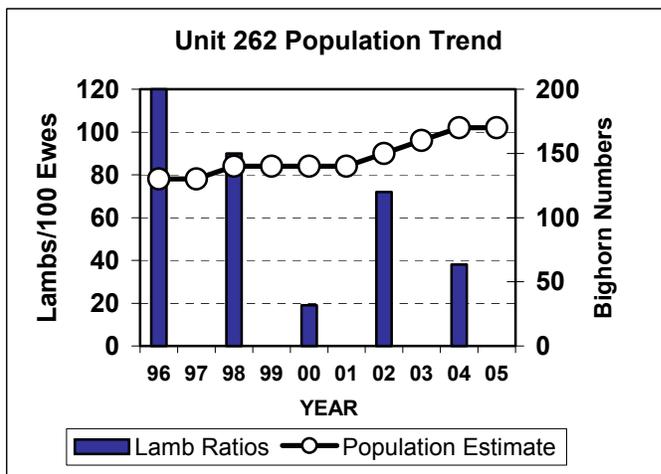


Figure 1. Observed lamb ratios and population trend for western Clark County bighorn herd.

In September 2003, a 4.6-hour aerial survey conducted in the south Spring Mountains (south of State Route 160) yielded a sample of 3 rams and 6 ewes.

Habitat

Unit 262 tends to receive more precipitation from year to year than most other areas in Clark County. Bighorn sheep generally benefit from adequate range conditions on a consistent basis; however, due to proximity to Las Vegas, recreational pursuits (e.g., OHV and mountain bike use/proliferation of roads and trails), feral horses and burros, and suburban sprawl serve to degrade the habitat.

Landscape scale projects in bighorn sheep habitat include the Kern River Gas Transmission Expansion and Lone Mountain Community Pit. Future large-scale projects include upgrade of Sandy Valley Road and construction of Ivanpah Energy Center (power plant) near Goodsprings. In addition, interest remains to develop a wind energy power generation plant in the Table Mountain area.

Population Status and Trend

North of State Route 160, bighorn sheep inhabit the Red Rock and La Madre portions of the Spring Mountains. South of State Route 160, bighorn occur in lower densities throughout the Bird Spring Range, Potosi Mountain, Table Mountain, Little Devil Peak and Devil Peak.

The 2005 desert bighorn sheep population estimate is 170 animals and approximates the estimate derived last year (Figure 1, previous page).

Desert bighorn sheep in Unit 262 face a host of challenges with respect to habitat degradation, fragmentation and loss. Increasingly, land management emphasis in the Red Rock area is to accommodate human recreational pursuits that are often incompatible with habitat conservation. In the La Madre Ridge area, human encroachment in the form of suburban sprawl and OHV use has eliminated and degraded bighorn sheep habitat.

DESERT BIGHORN SHEEP

Unit 263, McCullough Range and Highland Range: Southern Clark County

Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section

Harvest

In 2004, the overall quota was 6. However, similar to the 2003 season, 1 Heritage tagholder and 2 Partnership in Wildlife tagholders elected to harvest rams in the unit. Thus in 2004, 9 rams were harvested in Unit 263.

Survey Data

In October 2004, aerial bighorn sheep surveys were conducted in the Highland Range, north McCullough Range and portions of the south McCullough Range. In the Highland Range, a 2.7-hour survey yielded a sample of 50 sheep comprised of 19 rams, 23 ewes and 8 lambs (83 rams/100 ewes/35 lambs). During a brief 1.0-hour survey in the southern portion of the McCullough Range, 12 rams, 23 ewes and 4 lambs were observed. In the northern portion of the McCullough Range, a 5.4-hour survey yielded a sample of 230 sheep comprised of 72 rams, 106 ewes and 52 lambs. Inclusive of both flights in the McCullough Range, the observed ram- and lamb-to-ewe ratios were 65 and 43, respectively. The 2004 sample (319 sheep) obtained in Unit 263 was the largest recorded (Figure 1).

Habitat

In January 2004, Fraternity of the Desert Bighorn members and NDOW personnel reconstructed the Highland #2 water development. In like fashion, the Highland #1 water development was reconstructed in

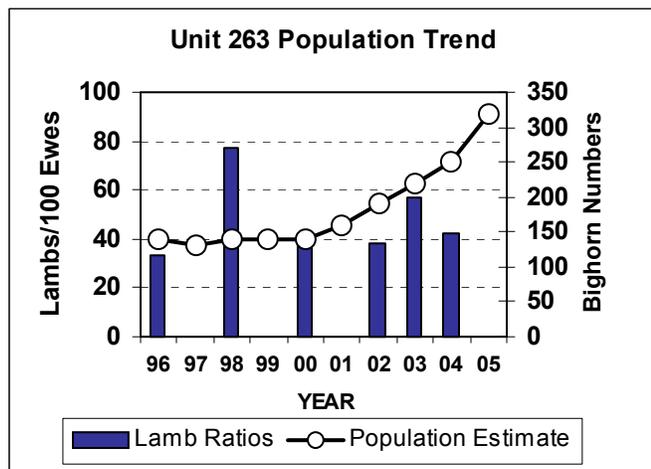


Figure 1. Observed lamb ratios and population trend for the McCullough and Highland bighorn herds.

February 2003. Steel collection aprons were installed at both units. Water storage capacities at Highland #1 and Highland #2 are 7,200 gallons and 3,600 gallons, respectively.

Further north, in mid March 2004, the McCullough #1 water development was upgraded with 2,700 gallons of additional water storage capacity, and construction of a steel collection apron and small dam. The total water storage capacity of the unit is now 10,100 gallons.

Four land use actions, either in review stages or already authorized by the Bureau of Land Management Las Vegas District that if undertaken, are anticipated to impact bighorn sheep inhabiting the northern portion of the McCullough Range. To enhance recreation, the city of Henderson has proposed a road and associated trails network that would extend from Anthem master-planned community eastward over the McCullough Range and link with that portion of Henderson on the east side of the range. Two other projects involve construction of a 20-inch diameter, buried steel natural gas pipeline, and a 230-kilovolt-transmission line over McCullough Pass. The Harry Allen-Mead Transmission Line Project entailed construction of a 500-kilovolt-transmission line through the south end of the prominent ridge extending south from Railroad Pass.

An unresolved issue centers on relocation of a segment of the local helicopter scenic tour operations from McCarran International Airport to a proposed heliport south of Sloan. The widely supported project is intended to direct helicopters enroute to and from the Grand Canyon to an unpopulated area. Tour helicopters departing and arriving at a heliport south of Sloan would necessarily fly over the McCullough Range. The direct route to and from the proposed heliport would entail potentially 120-200+ low-level flights over the central portion of the McCullough Range, and within 1 mile of 2 water developments. The issue and details will be resolved through federal legislation.

Population Status and Trend

Population data suggest the desert bighorn sheep herd in Unit 263 is expanding (Figure 1). The 2005 population estimate is 320. Based on aerial survey data, the majority of the bighorn sheep in Unit 263 remain distributed north of McCullough Pass.

In October 2003, the first capture and removal of bighorn sheep in the McCullough Range was conducted to achieve an augmentation of the herd inhabiting the Delamar Range. Fifteen sheep comprised of 14 ewes and 1 male lamb were captured from the east-central portion of the range.

Bighorn sheep in the northern portion of the McCullough Range face a variety of human imposed challenges in the near future. On the west flank of the range, suburban sprawl and flood control measures have already claimed much of the lower elevation habitat. To the north, the movement corridor between the River Mountains and the McCullough Range across US 93/95 at Railroad Pass has been effectively eliminated. Additional urban sprawl southward along I-15 is expected to degrade bighorn sheep habitat in the Hidden Valley area.

DESERT BIGHORN SHEEP

Unit 264, Newberry Mountains: Southern Clark County

Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Units 264 and 265 together have constituted a hunt unit group since 1998.

Survey Data

The last aerial survey in the Newberry Mountains was conducted in October 2003. The 2003 survey was 5.0 hours in duration, and yielded a sample of 41 bighorn sheep (Table 1). In 15 aerial surveys conducted since 1974, the 2003 sample was the second largest and reflected the highest proportion of observed lambs to ewes. Based on results of aerial surveys in recent years, bighorn sheep distribution

has seemingly narrowed from essentially the entire mountain complex to an area roughly bounded by White Rock Wash, Lake Mojave, State Route 163 and Christmas Tree Pass Road.

Table 1. Bighorn composition from aerial surveys in the Newberry Mountains.

Year	Rams	Ewes	Lambs	Total	Rams/100 Ewes/Lambs
1994	3	6	0	9	50/100/0
1996	6	11	4	21	55/100/36
1998	7	13	11	31	54/100/85
2000	12	18	5	35	67/100/28
2003	11	16	14	41	69/100/88

Population Status and Trend

The 2005 desert bighorn sheep population estimate for the Newberry Mountains Herd is 50, and approximates the estimate derived last year. Population data suggest the small herd is stable.

DESERT BIGHORN SHEEP

Unit 265, South Eldorado Mountains: Southeastern Clark County

Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

The last aerial survey in the southern portion of the Eldorado Mountains was conducted in October 2003. The sample of 12 bighorn sheep obtained during the 4.5-hour survey was comprised of 2 rams, 6 ewes and 4 lambs (Table 1).

Table 1. Bighorn composition from aerial surveys in the south Eldorado Mountains.

Year	Rams	Ewes	Lambs	Total	Rams/100 Ewes/Lambs
1992	3	1	0	4	300/100/0
1994	1	5	3	9	20/100/60
1996	19	14	5	38	136/100/36
1998	14	3	1	18	467/100/33
2002	3	2	2	7	150/100/100
2003	2	6	4	12	33/100/67

Since 1969, survey sample sizes have varied widely; samples have ranged from 0 to 50 animals. In some years, aerial survey data portray a disproportionate number of rams in the unit. In many of the 20 aerial surveys conducted since 1969, the number of rams observed either equaled or far exceeded the number of ewes.

Population Status and Trend

The southern Eldorado Mountains support a low-density resident bighorn herd as well as a fall migrant segment from the northern portion of the range. The 2005 desert bighorn sheep population estimate for the herd inhabiting the entire Eldorado Mountains (Units 265 and 266) is 180, and reflects an increase relative to 170 reported last year.

DESERT BIGHORN SHEEP**Unit 266, North Eldorado Mountains: Southeastern Clark County****Report by: Patrick J. Cummings**

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In 2004, 2 aerial bighorn sheep surveys were conducted in the northern portion of the Eldorado Mountains. The first survey was conducted in April and was pursuant to the *Bighorn Sheep Mitigation and Monitoring Plan for the Nevada Approach Project, Hoover Dam Bypass*. As intended, the survey was brief (3.1 hours) and focused in the northern third of the range within the area of influence of the Hoover Dam Bypass project. The sample of 70 bighorn sheep obtained through the survey was comprised of 9 rams 41 ewes and 20 lambs (22 rams/100 ewes/49 lambs). The proportion of lambs to ewes encountered during the survey was encouraging relative to that observed in April 2003. During a 4.7-hour aerial survey in April 2003, 78 bighorn sheep were classified. The sample consisted of 16 rams, 53 ewes and 9 lambs (30 rams/100 ewes/17 lambs).

The second aerial survey conducted in 2004 occurred in late October. The more extensive 5.8-hour survey yielded a sample of 96 sheep comprised of 20 rams, 53 ewes and 23 lambs (38 rams/100 ewes/43 lambs).

Habitat

On the northern end of the mountain range (Unit 266), the herd has coped not only with persistent drought conditions (2000-02), but also periodic deaths consequential to collisions with vehicles along US 93. The highway traverses through a bighorn sheep core use area and likely represents a population sink. The magnitude of the problem is somewhat unclear as it is expected only a fraction of the bighorn-vehicle collisions are reported.

The bighorn sheep herd in the Eldorado Mountains will face additional human imposed challenges. Over the course of the next several years, 2 massive projects will be undertaken to reroute US 93 traffic. A bridge will be constructed spanning the Colorado River over Black Canyon approximately 1/4 mile south of Hoover Dam. Also, US 93 likely will be diverted from passing through Boulder City to cutting through western and northern flanks of the Eldorado Mountains.

In October 2003, in efforts to better understand how the Hoover Dam Bypass project will impact bighorn sheep, the Federal Highway Administration, National Park Service and Nevada Department of Wildlife cooperated in capture of 20 bighorn sheep subsequently fitted with GPS and VHF telemetry systems. The near-term objective is to monitor bighorn movements and distribution before and during construction phases. Ultimately, as the project nears completion, bighorn movement and distribution data are anticipated to illuminate impacts that may be addressed and mitigated, as well as impacts that may be irreversible.

Population Status and Trend

The southern Eldorado Mountains support a low-density resident bighorn herd as well as a fall migrant segment from the northern portion of the range. The 2005 desert bighorn sheep population estimate for the herd inhabiting the entire Eldorado Mountains (Units 265 and 266) is 180, and reflects an increase relative to 170 reported last year.

The current estimate reflects an exaggerated decline from the estimated 300 animals in 2000. While the downward trend in the desert bighorn sheep population in the Eldorado Mountains likely began in the mid 1990s, population estimates since that time portrayed a more moderate decline. Thus, the magnitude of

decline as reflected in estimates in the last few years is in part an adjustment to account for a more pronounced downward trend over the last 9 or 10 years.

DESERT BIGHORN SHEEP

Unit 267, Black Mountains: Eastern Clark County

Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In October 2004, a 5.7-hour aerial bighorn sheep survey conducted in the Black Mountains yielded a sample of 80 sheep comprised of 16 rams, 54 ewes and 10 lambs (30 rams/100 ewes/19 lambs).

In October 2002, a sample of 131 bighorn sheep was obtained and consisted of 31 rams, 92 ewes, and 8 lambs (34 rams/100 ewes/9 lambs). In October 2000, 119 sheep comprised of 36 rams, 81 ewes and 2 lambs (44 rams/100 ewes/2 lambs) were observed.

Recruitment of young animals into the bighorn sheep herd inhabiting the Black Mountains has been below levels necessary to maintain the population. Aerial survey data (i.e., ram-to-ewe ratio, sheep per hour, total observed) portray a steady population decline that began in the latter half of the 1980s. In consideration of the last 7 aerial surveys conducted between 1996 and 2004, the average observed lamb ratio is 18 -- suggesting recruitment levels insufficient to maintain the population.

Weather and Habitat

Since the mid-1980s through 2002, drought conditions prevailed in Unit 267 with little reprieve. While adjacent areas benefited from scant, albeit infrequent precipitation, storm systems generally skirted the Black Mountains. In 2002, the Black Mountains bighorn sheep herd was subjected to severe drought conditions.

As of this writing in early March 2005, environmental conditions are favorable due to above average precipitation received in winter months. On a regional basis, forage species (i.e., succulent annuals and perennial grasses) common in bighorn sheep diets are growing in profusion from valley bottoms to ridgelines and peaks. In Spring 2005, forage quality and quantity will be sufficient to meet bighorn sheep energy and protein requirements for maintenance, lactation, and growth.

Population Status and Trend

Desert bighorn sheep occupying the Black Mountains and Muddy Mountains comprise a single population given the high degree of movement between ranges. However, environmental conditions and local population dynamics have differed markedly. Over the last 20 years, aerial survey data portray a decline in the number of desert bighorn sheep inhabiting the Black Mountains. In contrast, during the late 1980s and early 1990s, the adjacent Muddy Mountain segment expanded. More recently, unlike the bighorn segment inhabiting the Black Mountains, observed lamb-to-ewe ratios in the Muddy Mountains were high in 2003 and 2004.

The 2005 desert bighorn sheep population estimate for the Black Mountains and Muddy Mountains is 700, and reflects an increase over the estimate of 650 reported last year.

DESERT BIGHORN SHEEP
Unit 268, Muddy Mountains: Clark County
Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In October 2004, a 6.1-hour aerial survey conducted in the Muddy Mountains yielded a sample of 224 bighorn sheep. The sample was comprised of 66 rams, 93 ewes, and 65 lambs (71 rams/100 ewes/70 lambs). Bighorn sheep were encountered at a rate of 36.7 per hour. In October 2003, 250 bighorn sheep were classified during an aerial survey. The 2003 sample was comprised of 94 rams, 95 ewes and 61 lambs (99 rams/100 ewes/64 lambs). Observed lamb to ewe ratios in 2003 and 2004 were among the highest recorded for the bighorn herd inhabiting the Muddy Mountains.

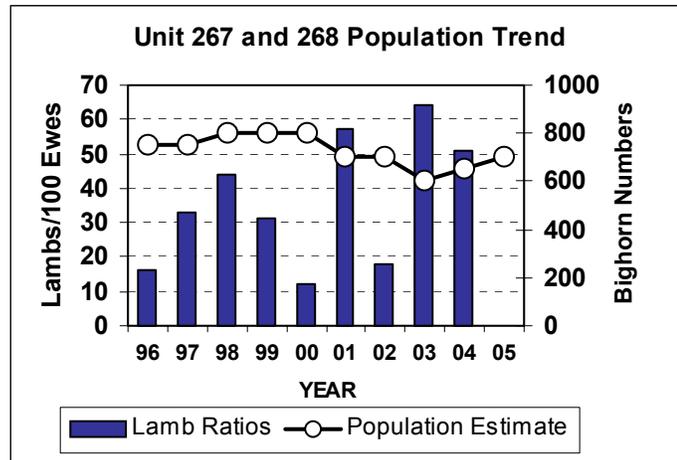


Figure 1. Observed lamb ratios and population trend for bighorn herds in the Black and Muddy Mountains.

Lamb-to-ewe ratios depicted in Figure 1 largely portray pooled data from aerial surveys conducted in both Muddy Mountains and Black Mountains. In 2001 and 2003 however, only bighorn sheep inhabiting the Muddy Mountains were surveyed. Consequently, the high lamb to ewe ratios depicted in Figure 1 for 2001 and 2003 are representative of dynamics only in the Muddy Mountains.

Population Status and Trend

Desert bighorn sheep occupying the Black Mountains and Muddy Mountains comprise a single population, given the high degree of movement between ranges. However, environmental conditions and local population dynamics have differed markedly. Over the last 20 years, aerial survey data portray a decline in the number of desert bighorn sheep inhabiting the Black Mountains. In contrast, during the late 1980s and early 1990s, the adjacent Muddy Mountain segment expanded. More recently, unlike the bighorn segment inhabiting the Black Mountains, observed lamb to ewe ratios in the Muddy Mountains were high in 2003 and 2004.

In October 2003, a bighorn sheep capture and removal operation was conducted in the Muddy Mountains to achieve an augmentation of the herd inhabiting the Delamar Range. Ten sheep comprised of 6 ewes, 1 female lamb and 3 male lambs were captured from the eastern portion of the Muddy Mountains.

The 2005 desert bighorn sheep population estimate for the Black Mountains and Muddy Mountains is 700, and reflects an increase over the estimate of 650 reported last year.

DESERT BIGHORN SHEEP
Unit 271, Mormon Mountains: Lincoln County
Report by: Mike Scott

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

Aerial surveys were conducted during September 2004, and resulted in the classification of 141 sheep.

These consisted of 29 rams, 71 ewes, and 41 lambs for a ratio of 41 rams/100 ewes/58 lambs. This represents the highest sample observed since the 1995 survey.

Habitat

The Lincoln County Lands Act of 2004 designated the Mormon Mountains as wilderness. Heavy pinyon-juniper invasion at the higher elevations limits useable habitat by bighorn sheep. Several springs around the Mormon Mountains are no longer useable by bighorns, and 5 big game water developments have been constructed to allow the sheep population to persist. One relatively large fire occurred in the Mormon Mountains during 2004, which may eventually benefit the sheep population. Domestic sheep and goats found on nearby private lands present a constant threat to the bighorn population.

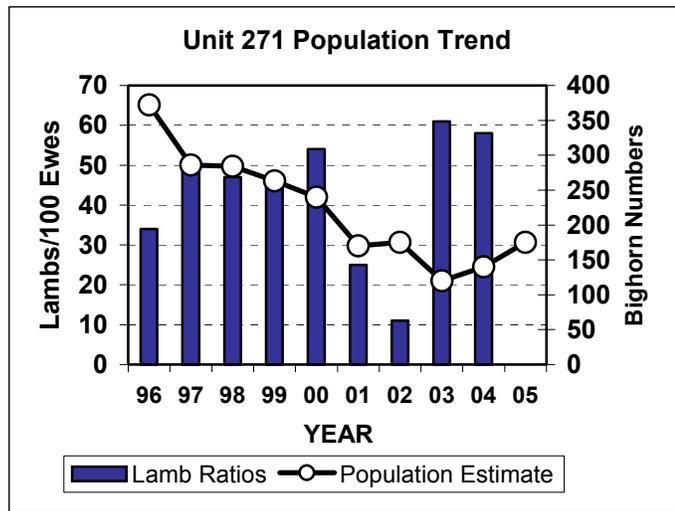


Figure 1. Observed lamb ratios and population trend of the Mormon Mountains bighorn sheep herd.

Population Estimate, and Trend

The Mormon Mountain bighorn sheep population has been depressed since the mid-1990's, but shows an upward trend. The Mormon Mountain herd has shown large fluctuations over the past 3 decades, with 2 well-documented die-offs occurring. This is the first year since 1983 that no rams have been harvested from the Mormon Mountains, despite the observation of several older age class rams in the 2004 survey. The current population estimate is 175 animals, compared to 140 in 2004.

DESERT BIGHORN SHEEP

Unit 272, Virgin Mountains and Gold Butte: Northeastern Clark County

Report by: Patrick J. Cumming

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In October 2004, a 4.3-hour aerial survey conducted in the Gold Buttes yielded a sample of 47 bighorn sheep. The sample was comprised of 14 rams, 28 ewes and 5 lambs (50 rams/100 ewes/18 lambs). Subsequent to the survey in the Gold Buttes, a brief 0.5-hour survey was accomplished in the areas of the Virgin #1 water development and Whitney Pocket. One ewe was observed near Whitney Pocket.

In September 2002, a 3.6-hour aerial survey conducted in the Gold Buttes yielded a sample of 26 bighorn sheep. The sample was comprised of 9 rams, 11 ewes, and 6 lambs (82 rams/100 ewes/55 lambs).

An aerial survey was conducted in the Virgin Mountains in September 2002 to assess the status of the bighorn sheep population segment and to evaluate habitat factors in consideration of a future augmentation. During the 4.4-hour survey, 1 ram, 2 ewes, and 1 lamb were observed near Whitney Pocket. The previous survey conducted in the Virgin Mountains was in 1996.

Habitat

In April 2004, the Virgin #1 water development was constructed northwest of Whitney Pocket as a measure to enhance habitat prior to a bighorn sheep release (augmentation). In accordance with

NDOW's biennial *Big Game Release Plan* (FY 2006-07), a release of 25-30 bighorn sheep near Virgin #1 will be undertaken in fall 2005.

Bighorn sheep habitat in the Hiller Mountains has remained in degraded state due to an expanding burro population and severe drought conditions. In 2002, the National Park Service removed an unspecified number of burros from the Hiller Mountains. Despite above average precipitation receipts since early 2003, preferred forage plant species (i.e., native bunch grasses) have been largely eliminated due to overgrazing by burros. A bighorn sheep release in the Hiller Mountains was approved in Fiscal Year 1996. However, the augmentation was never accomplished due to degraded habitat conditions.

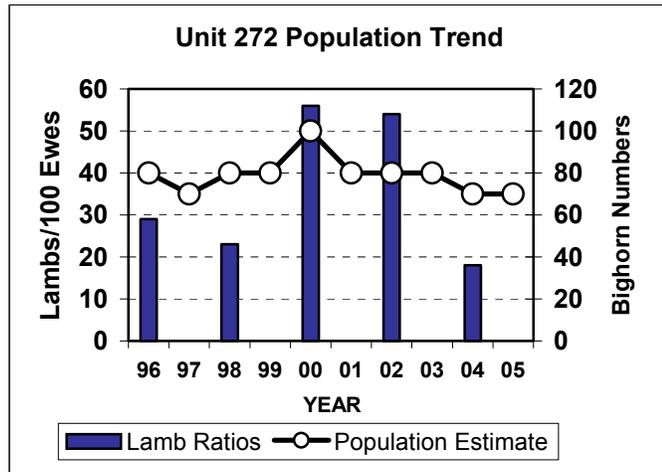


Figure 1. Virgin Mountains and Gold Butte bighorn herd population trends.

Population Status and Trend

The population estimate for bighorn sheep population inhabiting the Gold Buttes and Virgin Mountains is 70 individuals, and approximates the estimate derived last year (Figure 1). Census data collected from the mid-1970s to 1991 indicate the population slowly expanded. Since then, however, data collected during 3 successive aerial surveys (1993-95) suggested virtually no recruitment occurred, and that the population declined. During this 3-year period, the only evidence of production was observance of a single lamb during an aerial survey in 1995.

It was not until the fall 1996 aerial survey that the bighorn sample involved a lamb ratio indicative of a population experiencing recruitment. In the Gold Butte area, 31 sheep encountered during the 1996 survey consisted of 5 rams, 20 ewes, and 6 lambs (25 rams/100 ewes/30 lambs). Two ewes were noted as having red ear tags, and as such were determined to have belonged to the 1987 release contingent.

In October 1998, 51 bighorn classified during an aerial survey yielded a composition of 13 rams, 31 ewes and 7 lambs (42 rams/100 ewes/23 lambs). This sample was the second largest on record next to the high count of 58 sheep in 1991. Bighorn sheep distribution in recent years seems to have changed in that few inhabit the Virgin Mountains and most occur in the southern portion of the unit commonly referred to as the Gold Buttes.

Twenty bighorn sheep (1 ram, 12 ewes, and 7 lambs) captured in October 1998 in the Muddy Mountains were released north of Bonelli Peak. Based on distribution data collected from 3 ewes fitted with radio telemetry collars, dispersal from the release site occurred. Results of 3 aerial surveys conducted since 2000 suggest the 1998 augmentation has not hastened expansion of the population segment inhabiting the Gold Buttes.

**DESERT BIGHORN SHEEP
Unit 280, Spotted Range: Northwestern Clark County
Report by: Patrick J. Cummings**

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In August 2004, a 3.4-hour aerial survey yielded a sample of 43 bighorn sheep. The survey sample

consisted of 11 rams, 21 ewes and 11 lambs (52 rams/100 ewes/52 lambs). As expected given time of year, bighorn sheep were encountered in proximity to water developments. Bighorn sheep were observed throughout much of the range as defined by the presence of water developments with the exception of the southern extension. On the south end of the Spotted Range, no bighorn sheep were observed on either South Ridge or North Ridge. The 2004 sample reflected the highest lamb-to-ewe ratio in the brief history of aerial surveys conducted in the Spotted Range (Table 1).

Table 1. Bighorn composition during aerial surveys in the Spotted Range.

Year	Rams	Ewes	Lambs	Total	Rams/100 Ewes/Lambs
2000	18	20	10	48	90/100/50
2001	32	26	5	63	123/100/19
2002	13	18	6	37	72/100/33
2003	7	13	1	21	54/100/8
2004	11	21	11	43	52/100/52

Population Status and Trend

The bighorn sheep population in Unit 280 was established through releases in 1993 and 1996. The initial release complement captured from the River Mountains, Clark County was comprised of 2 rams, 13 ewes and 10 lambs. The 1996 release contingent was also obtained from the River Mountains and consisted of 8 rams, 16 ewes and 1 lamb. Habitat improvements in the Spotted Range include 6 water developments.

The 2005 population estimate for bighorn sheep inhabiting the Spotted Range is 70, and reflects an increase from 60 reported last year. In 2004, the population estimate was lowered in large measure due to results of the 2003 aerial survey. The observed lamb to ewe ratio in 2003 suggested recruitment in 2004 would be negligible.

DESERT BIGHORN SHEEP

Unit 281, Pintwater Range: Northwestern Clark County

Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In August 2004, a 5.0-hour aerial survey conducted in the Pintwater Range yielded a sample of 29 bighorn sheep. The sample was comprised of 13 rams, 12 ewes and 4 lambs (108 rams/100 ewes/33 lambs), and was the smallest recorded since 1980. The small sample was likely due to bighorn sheep being broadly distributed as result of rain received the evening prior to as well as several days before the survey (Figure 1).

In September 2003, an aerial survey conducted in the Pintwater Range yielded a sample of 67 bighorn sheep. The sample included 15 rams, 31

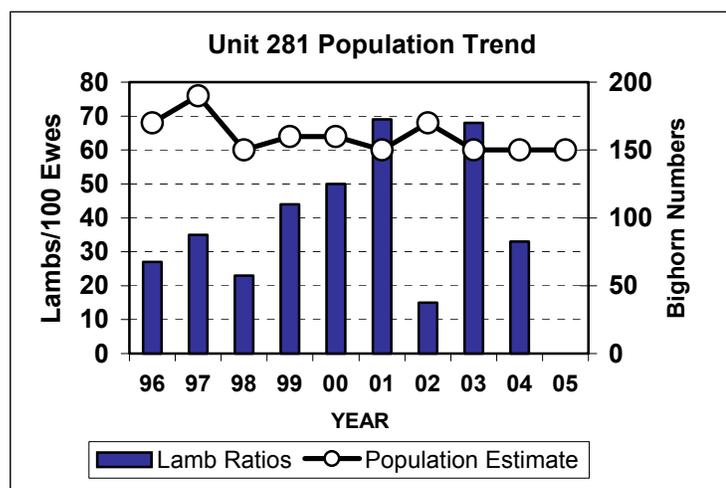


Figure 1. Observed lamb ratios and population trend for the Pintwater Range bighorn herd.

ewes and 21 lambs (48 rams/100 ewes/68 lambs). The lamb-to-ewe ratio was markedly higher than the long-term average.

Population Status and Trend

In the Pintwater Range, the 2005 bighorn sheep population estimate is 150 animals, and approximates the estimate derived last year. The estimate reported in 2003 was likely high, and current model projections suggest the population was closer to 130 sheep.

**DESERT BIGHORN SHEEP
Unit 282, Desert Range: Northwestern Clark County
Report by: Patrick J. Cummings**

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

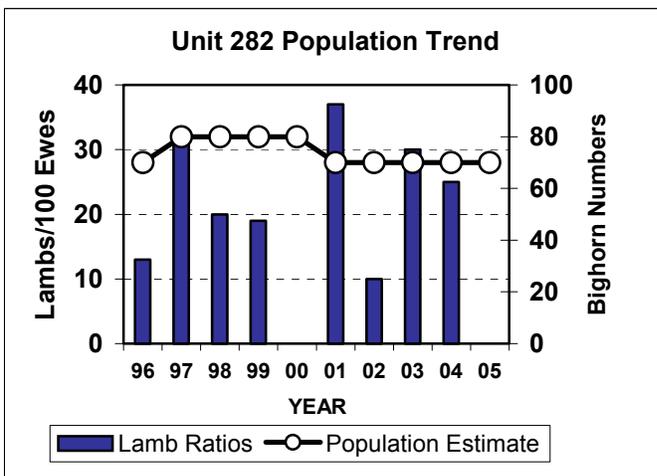


Figure 1. Observed lamb ratios and population trend for the Desert Range bighorn herd.

Survey Data

In August 2004, a 3.5-hour aerial survey conducted in the Desert Range yielded a sample of 24 bighorn sheep. The sample was comprised of 4 rams, 16 ewes and 4 lambs (25 rams/100 ewes/25 lambs) (Figure 1).

In September 2003, 48 bighorn sheep were classified. The sample was comprised of 9 rams, 30 ewes, and 9 lambs (30 rams/100 ewes/30 lambs). The lamb-to-ewe ratio was markedly higher than the corresponding ratio noted in 2002, and above the long-term average.

Population Status and Trend

The 2004 bighorn sheep population estimate is 70 animals, and approximates the estimate derived last year. Historically, many of the bighorn sheep occupying the Desert Range were fall and winter migrants from the adjacent Sheep Range. Over the long-term, the observed proportion of lambs to ewes has been low. In view of aerial surveys conducted annually since 1985, the average lamb to ewe ratio is 20.

**DESERT BIGHORN SHEEP
Unit 283, 284 East Desert Range and Sheep Range: Northern Clark County
Report by: Patrick J. Cummings**

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Seasons, Hunt Quotas and Harvest Results

In 2003, unit designations in Area 28 were simplified. The 4 units comprising the Sheep Range and East Desert Range were consolidated into 2 units. Former Units 283 and 287 were designated Unit 283; former Units 284 and 285 were designated Unit 284.

Survey Data

In 2004, aerial bighorn sheep surveys were conducted in the Sheep Range, East Desert Range, Black Hills and Mule Deer Ridge. In the course of 13.6 survey hours over 4 days, 133 sheep were classified.

The bighorn sample was comprised of 33 rams, 66 ewes and 34 lambs (50 rams/100 ewes/52 lambs). The overall lamb-to-ewe ratio was above the long-term average (Figure 1).

In 2003, 16.4 hours were expended on aerial surveys in the Sheep Range, East Desert Range, Black Hills and Mule Deer Ridge. Collectively, the surveys yielded a sample of 16 rams, 32 ewes, and 15 lambs (50 rams/100 ewes/47 lambs).

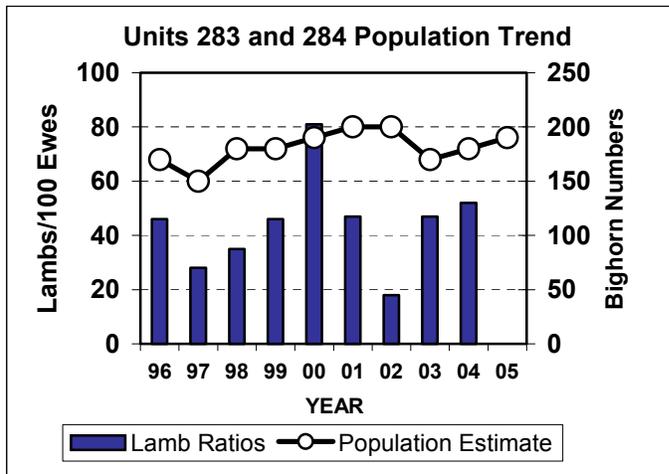


Figure 1. Observed lamb ratios and population trend of the Sheep Range bighorn sheep herd.

Population Status and Trend

The population estimate for bighorn sheep inhabiting Units 283 and 284 is 190 animals, and reflects an increase relative to the estimate (180) reported last year.

In an effort to hasten recovery of the bighorn population in the Sheep Range, and in conformance with NDOW's Big Game Release Plan, 35 sheep captured in late October 1998 from the Muddy Mountains, Arrow Canyon Range, and Specter Range were released at the mouth of Joe May Canyon. Subsequent monitoring efforts and aerial survey data suggest the release was not effective in achieving the objective.

DESERT BIGHORN SHEEP

Unit 286, Las Vegas Range: Clark County

Report by: Patrick J. Cummings

For hunting season results, please refer to the Desert Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

In September 2004, a 4.2-hour aerial survey conducted in the Las Vegas Range yielded a sample of 45 bighorn sheep. The sample was comprised of 11 rams, 28 ewes and 6 lambs (39 rams/100 ewes/21 lambs) (Figure 1). The survey was hampered by unfavorable flying conditions (i.e., high winds, micro bursts and rain) and terminated prematurely. Areas surveyed were limited to Gass Peak, Castle Rock, Fossil Ridge, Peek-A-Boo Canyon, Quail Spring and lower elevations of Gun Sight.

In September 2003, a 6.0-hour aerial survey yielded a sample of 53 bighorn sheep. The sample was comprised of 11 rams, 27 ewes, and 15 lambs (41 rams/100 ewes/56 lambs). The lamb-to-ewe ratio was markedly higher than the long-term average.

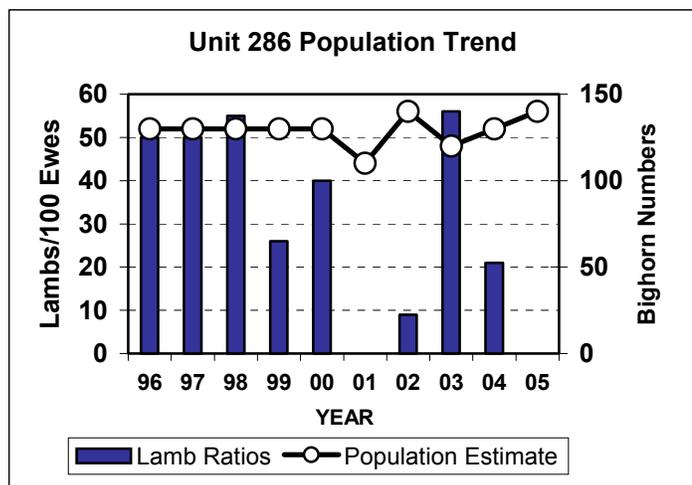


Figure 1. Observed lamb ratios and population trend for Las Vegas Range bighorn herd.

Habitat

The Las Vegas Range is situated immediately north of the Las Vegas valley, and in recent years, suburban development has approached the southern boundary of the Desert National Wildlife Range. Increasingly, off-highway-vehicle (OHV) use has resulted in proliferation of unauthorized roads and trails. Despite federal regulation prohibiting the use of unlicensed vehicles on the refuge, the newly established network of roads and trails allows OHV users access to formerly undisturbed bighorn habitat.

Population Status and Trend

The 2005 population estimate for bighorn sheep inhabiting the Las Vegas Range is 140, and reflects an increase over the estimate (130) reported last year. The Las Vegas Range supports a resident bighorn population, and during cooler months, a migrant segment from the Sheep Range.

CALIFORNIA BIGHORN SHEEP

CALIFORNIA BIGHORN SHEEP

Unit 012, Calico Mountains and High Rock Canyon: Western Humboldt and Washoe Counties
Report by: Chris Hampson

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

A record high sample of 151 bighorn was classified during helicopter surveys in late August. The sample was comprised of 44 rams, 75 ewes and 32 lambs, with a composition ratio of 59 rams/100 ewes/43 lambs. The large sample provided a rare opportunity to obtain very good sex and age composition data from a high percentage of the animals living in this hunt unit. The previous high count of 105 sheep was made in 2003. The 2003 composition ratio was 73 rams/100 ewes/60 lambs.

The observed lamb ratio of 43 lambs per 100 ewes was below the long-term average of 60 lambs per 100 ewes for this herd. However, the recruitment observed is sufficient to allow for continued herd growth. Thirty-two lambs were observed on this year's survey.

Ram ratios were below what was observed in 2003 but are believed to be more precise due to the record sample obtained on this year's survey. Observed ram ratios can increase or decrease from year to year and are more representative when averaged over the long-term. Mature rams (6+ years) made up 32 % of the total ram sample obtained on this year's survey.

Population Status and Trend

Twenty California Bighorn were captured from unit 012 in mid-December 2004, and released a day later by the state of Idaho in the Jim Sage Mountains south of Burley, Idaho. The sheep were captured from several areas within the 012-hunt unit including the Calico Mountain Range, and areas north of Little High Rock and Chukar Gulch. Recruitment in 2004 was above maintenance levels and will allow the herd to experience continued herd growth. Sample sizes continue to increase and bighorn are expanding into the large amount of habitat available. Additional water development is planned within the hunt unit and will help to promote continued movement between the various subpopulations.

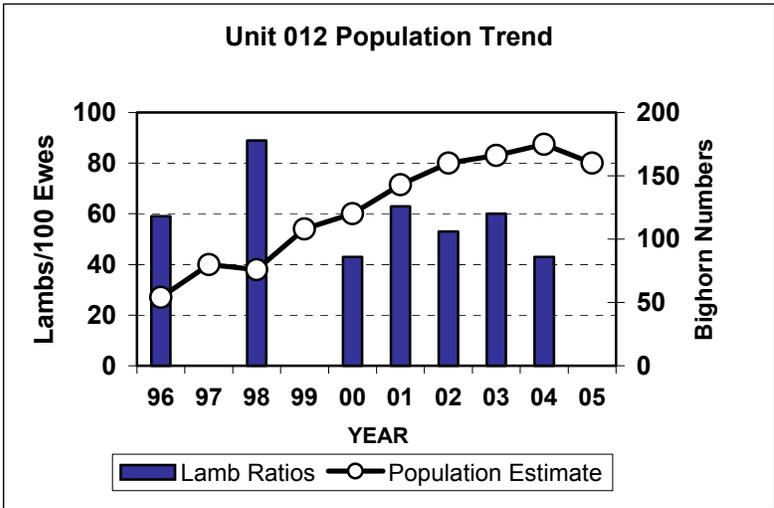


Figure 1. Calico/High Rock bighorn population trends.

The bighorn population continues on an upward trend but the estimate for 2005 will show a slight decrease due to the removal of the twenty bighorn in December of this year. The estimate for this herd now stands at approximately 160 animals.

CALIFORNIA BIGHORN SHEEP

Unit 011, 013, Vya Rim, Massacre Bench and Hays Canyon Range: Washoe County

Report by: Chris Hampson

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

California Bighorn aerial composition surveys were conducted during late August in 2004. The 15 rams, 21 ewes and 14 lambs observed on the survey resulted in a ratio of 72 rams/100 ewes/67 lambs. Forty-three of the animals were located in the Hays Canyon Range while 7 bighorn were observed on the Massacre Rim in unit 011.

The lamb ratio of 67 lambs per 100 ewes is excellent recruitment for this population and is almost identical to the 71 lambs per 100 ewes observed last year. The 2004 observed lamb ratio of 67 lambs per 100 ewes was 27% above the long-term average of 54 lambs per 100 ewes. This herd continues to have excellent recruitment.

The ram ratio of 72 rams per 100 ewes is representative of the actual ratio in this population. Rams 6-years-old and greater made up 40% of the total 2004 ram sample. Rams are normally more difficult to locate during survey because of their solitary nature and the greater distances that they commonly travel. Good representative ram samples are difficult to obtain and this can affect observed ram ratios from year to year.

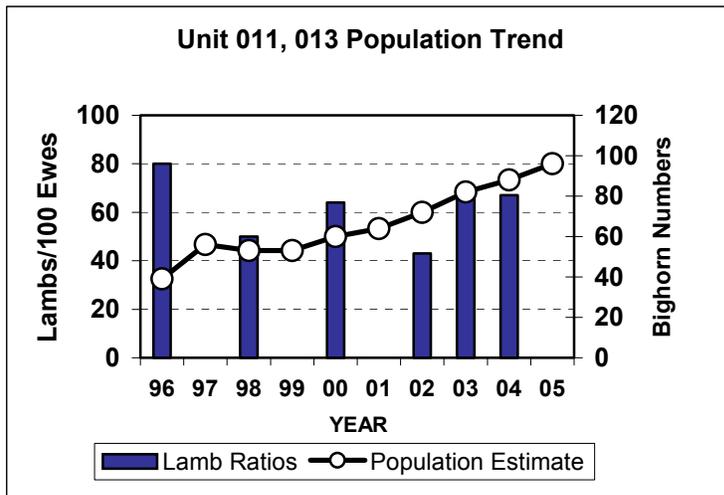


Figure 1. Vya Rim, Massacre Bench and Hays Canyon Range bighorn population trend.

steadily increased over time. Good recruitment continues and the herd will experience another increase in 2005. The estimate for the 011, 013 bighorn population shows a moderate increase and is now estimated at 96 animals.

Population Status And Trend

The initial release of fifteen bighorn occurred in the Hays Canyon Range in December of 1989. A second augmentation of fifteen sheep in 1995 helped to expand numbers and distribution of bighorn within unit 013. Bighorn in unit 011 have pioneered into the Massacre Bench area from the Sheldon. Other sheep have been observed in the Coleman Canyon area of unit 011 and have more than likely pioneered into the area from Oregon. Sample sizes in unit 011, 013 have increased over the last few years and mimic the expansion of this herd. As depicted in Figure 1, population numbers have

CALIFORNIA BIGHORN SHEEP
Unit 014, Granite Range: Washoe County
Report by: Chris Hampson

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

Bighorn composition surveys in unit 014 took place in late August 2004. The survey was limited to the northern half of the range due to high winds at the upper elevations. A single group of 11 rams was observed on the north end of the range near Buckhorn Peak. No ewes or lambs were observed on this survey. In 2003 a total of 22 sheep was observed and classified as 6 rams, 13 ewes, and 3 lambs, with a computed ratio of 46 rams/100 ewes/23 lambs. NDOW has received several reports of between 12 and 25 sheep just north of the town of Gerlach over the last several years.

Population Status and Trend

The recent augmentation of 18 bighorn in December 2004 will give a boost to this population. The release complement was made up of 17 females and 1 male lamb. The animals were captured from McGee Mountain in Humboldt County, Nevada. The sheep were released on the southwestern corner of the Granite Range and recent telemetry work indicates that the bighorn remain close to the release site. Nevada Bighorns Unlimited Midas Chapter provided funding to pay for the trapping and transplanting project.

Nevada Department of Wildlife biologists believe that the Granite Range herd experienced a disease related die-off in 2000. The recent augmentation will help this herd recover from the losses it incurred due to this disease event.

Sufficient older age class rams are known to exist Unit 014 to once again allow for limited hunting opportunity. A bighorn-hunting season has been established for 2005 and 2006. The hunting season was closed between 2001 and 2004 due to the disease related die-off. Bighorn sheep hunters are able to provide valuable information to NDOW on bighorn populations when they report the number, composition and locations of animals that they have observed while hunting. The 2005 estimate for the 014 bighorn population is approximately 60 animals, which is an increase from the previous year's estimate of 40.

CALIFORNIA BIGHORN SHEEP
Unit 022, Virginia Mountains: Washoe County
Report by: Chris Hampson

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

One hour of survey time was expended surveying for California Bighorn Sheep in unit 022 during the third week of August 2004. A small sample of 16 sheep was classified as 2 yearling rams, 12 ewes and 2 lambs. A single group of 5 rams was observed while conducting spring mule deer composition surveys in March of 2005. The ram group was made up of 4 rams aged 2 to 3 years of age and 1 ram that was classified as a 5-year-old. Sportsman and others have reported several observations of bighorn near Sand Pass located northwest of Pyramid Lake. A chukar hunter reported finding the skull of a seven-year-old ram in January 2005 in the same general area. Most of the reports from the public and observations by NDOW biologists occur in the northern portion of unit 022. Bighorn have not been observed in recent years in the vicinity of Big Canyon where the previous two releases of bighorn occurred. Sheep have generally moved further to the north and now occupy lower elevation areas near Cottonwood and East Cottonwood Canyons.

Population Status and Trend

The unit 022 bighorn population continues to experience low lamb recruitment. Adult survival may also be lower than most other bighorn herds in Washoe County. The herd has experienced downward to somewhat stable trends over the last several years. NDOW biologists are planning an augmentation to the Virginia Mountain bighorn population in 2007. This should allow the population to reach a level where the herd can sustain itself and experience herd growth. A limited number of mature rams in this population and low overall numbers prevent the opening of the bighorn-hunting season in this unit. The hunting of bighorn in this unit began in 1997 but was closed in 2001. The season will remain closed until recruitment improves and older aged class rams are available for harvest.

The initial release of California Bighorn sheep into the Virginia Mountains occurred in March 1990. A total of 13 sheep, captured near Williams Lake, British Columbia, was released into Big Canyon in the northeast portion of the range. An augmentation of 14 sheep occurred in December 1991. The population has not responded as expected and needs another augmentation in order to become a healthy sustainable population.

The highest number of animals classified to date for this herd was the thirty-three animals observed during the 2002 helicopter survey. The sample was classified as 2 rams, 20 ewes and 11 lambs. Since the 2002 survey, the samples obtained on composition surveys have been much lower. Surveys in 2003 were hampered by fog and poor flight conditions. In 2004, a sample of 16 animals was obtained and only two lambs were observed. The population estimate for the Virginia Mountain bighorn population has decreased slightly to an estimated 36 animals.

**CALIFORNIA BIGHORN SHEEP
Unit 031, Montana and Trout Creek Mountains: Humboldt County
Report By: Ed Partee**

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Harvest Results

Nine bighorn hunts have been conducted in Unit 031, beginning with the first one held in 1996. There have been 22 hunters in this unit and have harvested 21 rams for a 95 percent success rate. These hunters have averaged 4.4 days in the field and the age class of rams has ranged from 4 - 10 years of age with the average being 6.9. The average Boone and Crockett Score of the 21 rams is 148 4/8", with a range of 118" to 164 6/8". This year's hunt resulted in 5 animals being harvested from this unit. All the animals harvested in this unit came from the Montana Mountains. For harvest results specific to the 2004-hunting season, please refer to the Species Harvest Tables in the Appendix Section.

Survey Data

This year's survey was conducted in August in conjunction with pronghorn flights. A total of 89 animals were classified which included 24 rams, 44 ewes, and 21 lambs for a ratio of 55 rams/100 ewes/48 lambs. These ratios

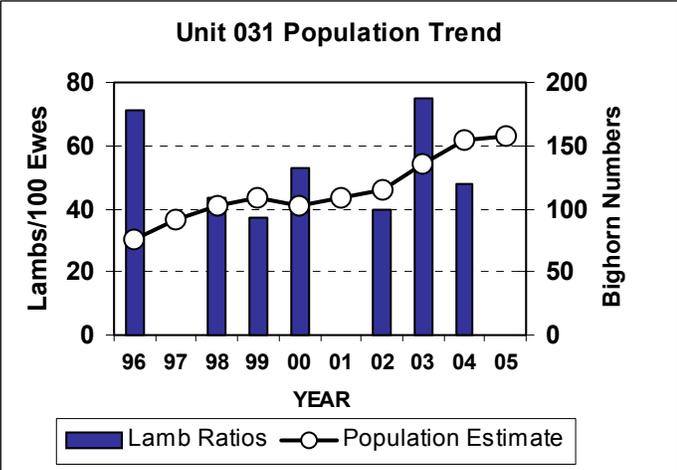


Figure 1. Observed lamb ratios and population trend for the Montana, Trout Creek, and Double H Mountain bighorn sheep herds.

fall right in line with the total averages for this unit. The total animals classified are a bit higher than previous year's surveys. With the higher number of animals surveyed this resulted in a much better sample size which better corresponds with the total years averages. The ram to ewe and lamb to ewe ratio resulted in 55 rams/100 ewes and 48 lambs/100 ewes. The ram ratio is a little lower than the five-year average of 80 rams/100 ewes. However the lamb ratio is right in line with the five-year average of 52 lambs/100 ewes. The animals classified in 2004 were done from both the air and the ground. Hot weather conditions had the animals shading up earlier in the day making it difficult to locate animals from the air.

Population Status and Trend

The population estimate for this unit is 157 animals. The estimate is about the same as last years estimate, however it is up from 2002. Lamb ratios for this year are back within the five-year average. The lamb ratio has dropped from the previous year. Part of the reason for the drop in lamb ratios is due to the time the survey was conducted. The traditional large ewe/lamb groups were not located due to the warm temperatures during the survey period. With another mild winter and lack of quality forage from drought conditions, it may be having an effect on lower lamb production. If drought conditions continue we may start to see a decline in our population estimates. Sheep that were released in the Double H Mountains in 2003 are still doing very well and are dispersing across both ranges.

Overall health of the bighorn sheep is still being monitored through harvested animals. This in part is a continuation from the work that began in 2000 with the mineral supplement study. The objective of the project was to improve the immune system of bighorn sheep by enhancing depressed mineral levels. Data is inconclusive at this time whether the mineral supplement contributed to increased mineral levels in the animals.

CALIFORNIA BIGHORN SHEEP

Unit 032, Pine Forest Range and McGee Mountain: Humboldt County

Report by: Ed Partee

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Harvest Results

Twelve bighorn hunts have been conducted in Unit 032, beginning with the first one held in 1992. This unit has seen a total 62 hunters and they have harvested a total of 57 rams resulting in a 92 percent success rate. Hunters have averaged 4.7 days to harvest their animal. The average age class of rams has been 7 years old with a range between 4 - 12 years. The average Boone and Crockett Score of the 57 rams are 147 5/8", with a range of 120 4/8" to 164 5/8". For harvest results specific to the 2004-hunting season, please refer to the Species Harvest Tables in the Appendix Section.

Survey Data

Aerial bighorn composition surveys were conducted in November this year due to hunting seasons that were in progress during normal scheduled flights. A total of 85 sheep were observed during this survey, which is much lower, than the last year's survey. Due to the time of the year when this flight took place, a couple of large groups of animals were observed. The classification of the 85 animals resulted in 20 rams, 34 ewes, and 31 lambs for a ratio of 51 rams/100 ewes/91 lambs. The ram ratio for this year is pretty close to what we saw last year. This ratio falls a little shy of the 5-year average, which is 65 rams/100 ewes. The 5-year average on the ram ratio is very comparable to the ratio history for this unit. This year's lamb ratio was extremely high when compared to ratios in the past. The five-year average is right at 42 lambs/100 ewes. This is the second highest ratio ever observed in this unit.

Population Status and Trend

The 2005 population estimate for this unit is 143 animals. In 2004 the estimate was at 164 animals. The drop in the population can be directly attributed to the sheep capture that took place in January 2005. Eighteen animals were removed from this unit and transplanted in the Granite Range in Northern Washoe County. Prior to this capture the population was very similar to 2004 estimates. This unit is very stable and has proven to be able to rebound from any captures that have taken place over the years making it an ideal source stock for future transplant efforts. Forage in this area and ample water sources due to water developments have made this one of the premier areas for sheep to reside. The increase in lamb ratios can be attributed to the availability of forage and water in this area. With higher than average lamb production we should see an increase in the population estimate in the future.

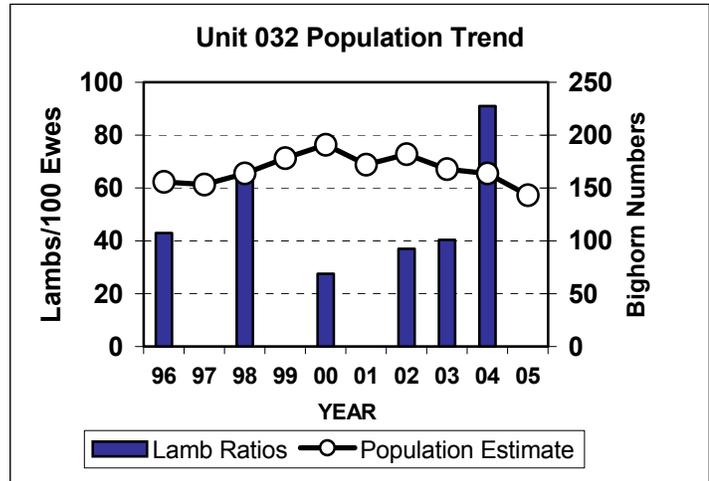


Figure 1. Observed lamb ratios and population trend for the Pine Forest Range and McGee Mountain bighorn sheep herds.

Overall health of the bighorn sheep is still being monitored through harvested animals. This in part is a continuation from the work that began in 2000 with the mineral block study. The objective of the project was to improve the immune system of bighorn sheep by enhancing depressed mineral levels. To date, no significant increases in mineral levels have been documented.

CALIFORNIA BIGHORN SHEEP

Unit 033, Sheldon National Wildlife Refuge: Washoe and Humboldt Counties

Report by: Chris Hampson

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

Approximately 2 hours of survey effort was expended flying composition surveys for California Bighorn sheep on the Sheldon. The surveys classified a total of 54 sheep with a computed ratio of 80 rams/100 ewes/36 lambs. The composition of the sample was 20 rams, 25 ewes and 9 lambs. Recruitment this year was slightly lower than the 40 lambs per 100 ewes observed in 2003. Lamb ratios for this herd have been generally lower than the recruitment observed in other surrounding sheep populations. Ratios observed since 1998 have averaged 41 lambs per 100 ewes.

Ram ratios can fluctuate from year to year and are best analyzed over the long-term to get a more accurate estimate of the actual ram ratio for a population. This year's ram ratio of 80 rams per 100 ewes is skewed high due to the large number of rams observed on this year's survey. The second largest sample of 112 animals was obtained in 1998 and had a computed ram ratio of 62 rams per 100 ewes. This is more representative of the actual ram ratio for this population.

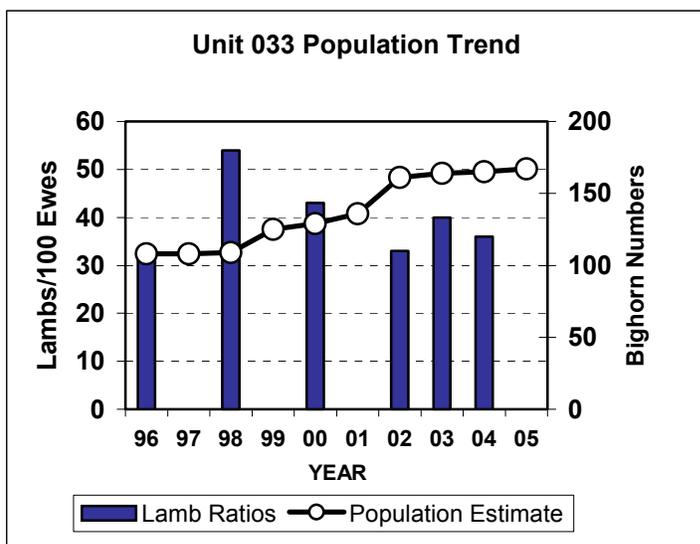


Figure 1. Sheldon bighorn population trends.

Population Status and Trend

The first bighorn sheep re-introduction in Nevada took place in 1968 and occurred in the proximity of Hell Creek in unit 033. A total of five sheep releases have taken place on the Sheldon and 78 bighorn have been released. With an average lamb recruitment rate of 43 lambs/100 ewes since the initial release in 1968, this population has slowly but steadily increased in number (Figure 1). An aggressive trapping and transplanting program in the 1980's and 1990's allowed this population to expand. Recent water development has allowed the population to expand their distribution into the vast amount of sheep habitat available. The 36 lambs per 100 ewes observed this year is

only average or slightly below average recruitment for this herd. The 2005 population estimate shows a stable trend and mimics the 2004 estimate of 170 animals.

CALIFORNIA BIGHORN SHEEP
Unit 034, Black Rock Range: Humboldt County
Report by: Ed Partee

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Harvest Results

Seven bighorn hunts have been conducted in Unit 034, beginning with the first one held in 1998. There have been 24 hunters in this unit and have harvested 24 rams for a 100 percent success rate. Hunters in this unit have spent on the average 3.4 days in the field to harvest their animals. The age class of the rams harvested has been between 5 - 11 years of age with the average age being 8 years old. The average Boone and Crockett Score of the 24 rams is 158 7/8", with a range of 146 1/8" to 167 2/8". For harvest results specific to the 2004-hunting season, please refer to the Species Harvest Tables in the Appendix Section.

Survey Data

This year's surveys were conducted in August in conjunction with pronghorn flights. This year's survey resulted in classifying 44 animals, which is slightly lower than the previous few years. A total of 12 rams, 16 ewes, and 16 lambs were classified yielding a ratio of 75 rams/100 ewes/100 lambs. Lamb ratios were very high this year partly due to the smaller sample size. Long-term averages of lamb to ewe ratios are at 66 lambs/100 ewes. The ram ratio of 75 rams/100 ewes is very close to that of the long term averages for this unit, which is 73 rams/100 ewes.

Population Status and Trend

The population estimate for the Black Rock Range in 2005 is 157 bighorn, which is a slight decrease from the 2004 estimate. The drop in the population estimate is in part a result of a smaller sample size during the survey. Areas that yielded high numbers of sheep in past surveys were missed during this year's flight. However, with the lamb recruitment that was seen with the animals that were surveyed, there should be a slight increase in numbers in the future. This unit has had two key water developments put in place that will greatly benefit bighorns in this range. These two units will reduce the intense competition between the sheep and the wild horses for free water. With the continuation of the drought we may see a decrease in quality forage in turn resulting in lower lamb numbers.

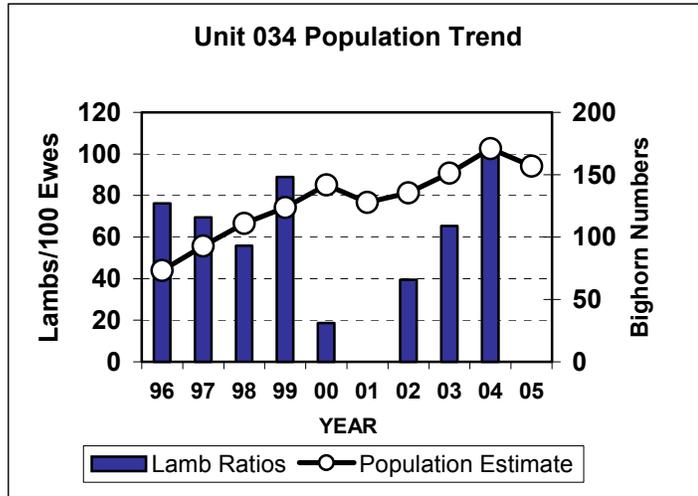


Figure 1. Observed lamb ratios and population trend for the Black Rock Range bighorn sheep herd.

Hunter access has been altered by the designation of the Black Rock/High Rock Immigrant Trail National Conservation Area and Wilderness Areas (NCA). The NCA boundaries embrace the primary harvest area of Big Mountain. The BLM has marked the majority of the restricted access points and hunters who apply for this area need to understand these restrictions. Despite the access issues in this area, hunter success has been good in this unit.

**CALIFORNIA BIGHORN SHEEP
Unit 035, Jackson Mountains: Humboldt County
Report by: Ed Partee**

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Harvest Results

Fourteen bighorn hunts have been conducted in Unit 035, beginning with the first one held in 1990. There have been 52 hunters in this unit and have harvested 46 rams for an 88 percent success rate. On the average it has taken 6 days for hunters to harvest their animals. The age class of rams has ranged from 3 to 16 years of age with the average being 7.6. The average Boone and Crockett Score of the 46 rams is 148", with a range of 120 2/8" to 162". For harvest results specific to the 2004-hunting season, please refer to the Species Harvest Tables in the Appendix Section.

Survey Data

Surveys were conducted in August this year in unit 035 resulting in 41 sheep being classified. A total of 6 rams, 19 ewes, and 16 lambs were classified resulting in a ratio of 32 rams/100 ewes/84 lambs. Between the warm temperatures and the time of day in which the survey was conducted it made it very difficult to locate animals. Lamb ratio were the second highest this unit has seen with 84 lambs/100 ewes. The average for this unit is at 60 lambs/100 ewes. This ratio is still on the increase when compared to the last several years. The ram ratio is at 32 rams/100 ewes, which is a slight decrease from the last 2 years. The average ram ratio for this unit is 51 rams/100 ewes. This ratio, even though it is below the average for this unit, is still within management objectives. During the survey, no sheep were located at the north

end of the range. The bulk of the sheep observed were around King Lear Peak, which encompassed both ram and ewe/lamb groups.

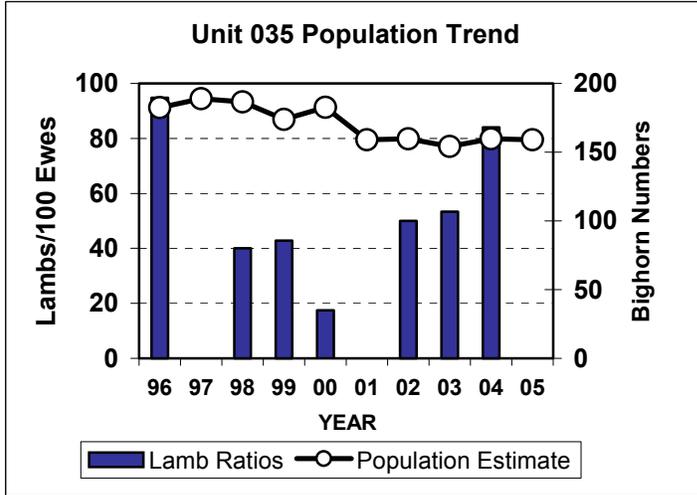


Figure 1. Observed lamb ratios and population trend for the Jackson Mountains bighorn sheep herd.

Population Status and Trend

The population estimate for the Jackson Mountain Range for 2005 is 159 bighorn. This estimate is pretty much the same as it was in 2004 with 160 animals. This population has remained pretty stable for the last 10 years with the average being 171 animals. The lamb ratios have fluctuated considerably with in the last 10 years. Even with these fluctuations this population has held stable. With the difference in the lamb ratios, it is a good indicator of forage availability. This unit has seen increased lamb production within the last 3 years, which should influence the population. At this time we are not seeing an increase, which may be due to

survivability of those lambs due to forage conditions. Drought conditions have played a major part in all our wildlife populations.

Overall health of the bighorn sheep is still being monitored through harvested animals. This in part is a continuation from the work that began in 2000 with the mineral block study. The objective of the project was to improve the immune system of bighorn sheep by enhancing depressed mineral levels. To date, no significant increases in mineral levels have been documented.

Hunter access has been influenced by the designation of the Black Rock/High Rock Immigrant Trail National Conservation Area and Wilderness Areas (NCA). The NCA boundaries embrace bighorn concentration areas of King Lear Peak and Parrot Peak. The Bureau of Land Management (BLM) has marked the majority of the restricted access points and hunters who apply for this area need to understand these restrictions.

**CALIFORNIA BIGHORN SHEEP
Unit 041, Sahwave Mountains, Pershing County
Report by: Kyle Neill**

For hunting season results specific to the 2004 season, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

On 12 January 2005 a total of 20 California Bighorn sheep was classified during the helicopter composition survey in the Sahwave Mountains and in the south end of the Bluewing Mountains. Snow cover from recent storms aided in finding bighorns. The survey resulted in a composition of 5 rams, 8 ewes and 7 lambs, all of which were observed in the Sahwave Mountains. The sample yielded a composition ratio of 63 rams/100 ewes/88 lambs. The observed lamb ratio of 88 lambs per 100 ewes is the highest ever observed lamb ratio in unit 041 and is an increase of 54% from last year's ratio of 57 lambs per 100 ewes.

Population Estimate and Trend

In 2004, there were no reported or observed sightings of California Bighorn sheep in any other mountain ranges besides the Sahwave Mountains. However, movement of sheep is still believed to be occurring in unit 041 between the Sahwave Mountains, Selenite Range and the Nightingale Range. NDOW aerial surveys are still observing less rams than previous years efforts, but the number of rams observed has been stable at about five per survey in the last two years.

The herd appeared to deal with the past winter well. South facing slopes burned off quickly after December and January’s snowstorms, which provided adequate forage throughout the remainder of the winter. Unit 041’s bighorn population still remains static at 39 animals. The herd’s population should increase slightly next year, given the high recruitment rate of 88 lambs per 100 ewes and if favorable precipitation levels exist throughout the year.

**CALIFORNIA BIGHORN SHEEP
Unit 051, Santa Rosa Range: Humboldt County
Report by: Ed Partee**

For hunting season results, please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Harvest Results

Unit 051 has seen 20 bighorn hunts beginning with the first one held in 1985. There have been 88 hunters in this unit and have harvested 86 rams for a 98 percent success rate. These hunters have averaged 7 days in the field to harvest their animal and the age class of rams has ranged from 2 - 10 years of age with the average being 7. The average Boone and Crockett Score of the 86 rams is 157 3/8“, with a range of 116” to 175 2/8”. For harvest results specific to the 2004-hunting season, please refer to the Species Harvest Tables in the Appendix Section.

Survey Data

Arial surveys for bighorn sheep were conducted in late July 2004 resulting in the classification of 96 sheep. Classification resulted in 15 rams, 54 ewes, and 27 lambs for a calculated ratio of 28 rams/100 ewes/50 lambs. The lamb ratio of 50 lambs/100 ewes is right in line with the unit average of 56 lambs/100 ewes. The ram ratio has fallen considerably since previous surveys. The ram ratio for this unit in 2004 was at 28 rams/100 ewes. This marks the lowest ram ratio this unit has seen. The average for this unit is 59 rams/100 ewes. The significant drop in the ram ratio can be attributed to the die-off we experienced in December 2003.

Population Status and Trend

The Santa Rosa Range for 2005 has a population estimate of 172 bighorns. This population estimate is still down, which is to be expected after the die off that was experienced in December of 2003. The lamb ratio is still fair at

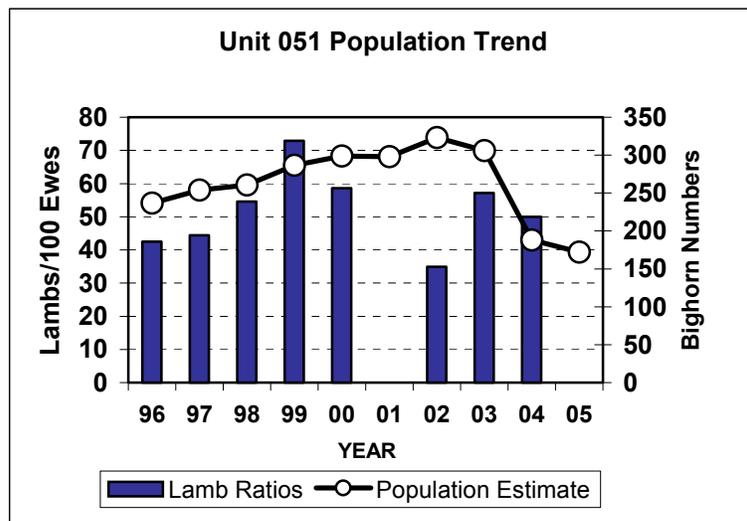


Figure 1. Observed lamb ratios and population trend for the Santa Rosa Range bighorn sheep herd.

this point and can be attributed to the areas of the mountain that did not experience the die off. There is still a good healthy population of sheep in both the north end of the range as well as the east side around Hinkey Summit. As expected there was no lamb recruitment into the population on the south end of the range where the die off occurred. Both extensive ground and aerial surveys conducted in this area found only adults in this area. This area will be monitored continually throughout the year to evaluate the status of these sheep as well as future lamb recruitment into this population.

Overall health of the bighorn sheep is still being monitored through harvested animals. This in part is a continuation from the work that began in 2000 with the mineral block study. The objective of the project was to improve the immune system of bighorn sheep by enhancing depressed mineral levels. To date, no significant increases in mineral levels have been documented.

CALIFORNIA BIGHORN SHEEP

Units 066, 068, Snowstorm, Sheep Creek, and Santa Renia Ranges: Western Elko and Northern Lander and Eureka Counties

Report by: Ken Gray

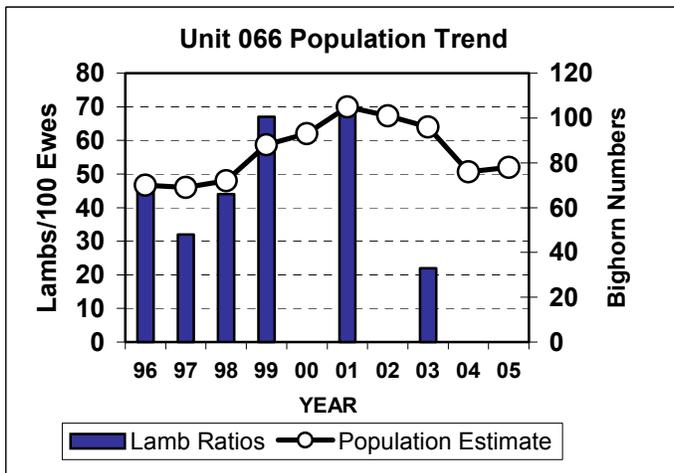


Figure 1. Observed lamb ratios and population trend for the Snowstorm Mountains bighorn sheep herd.

Tag Quotas and Harvest Results

Three tags were available for combined Units 066 and 068. Two out of the 3 hunters were successful in harvesting a ram in 2004. Both rams were harvested in Unit 066. The average age for the 2 rams was 7.5 years and the average B&C score was 148. For all of the 2004 hunting season results please refer to the California Bighorn Sheep Harvest Tables in the Appendix Section.

Survey Data

No survey data was collected in either unit during 2004.

Population Status and Trend

Average lamb ratios were used to drive the population models. Slightly higher lamb winter mortality was also included in the models to account for the harsh winter conditions that occurred in these units. Both populations are estimated to be slightly higher than the previous year's estimate (Figures 1 and 2).

The recommended tag quota in 2005 will be comparable to the 2004 quota. Unit 068 will remain combined with Unit 066 for the 2005 hunting season.

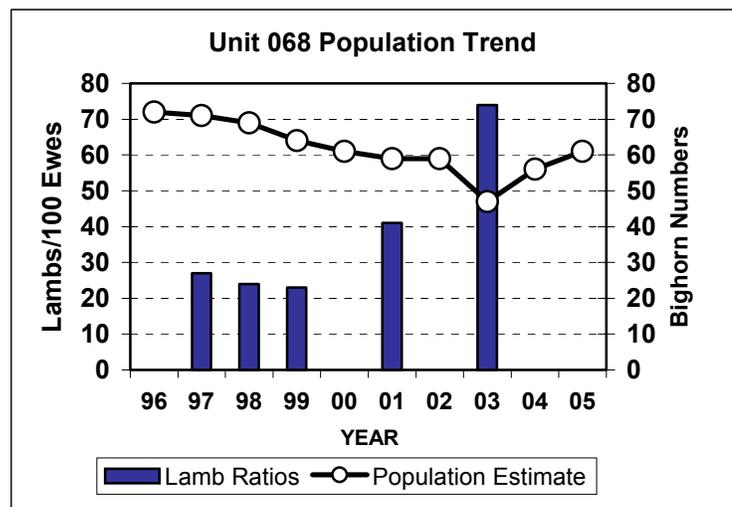


Figure 2. Observed lamb ratios and population trend for the Sheep Creek Range bighorn sheep herd.

ROCKY MOUNTAIN BIGHORN SHEEP

ROCKY MOUNTAIN BIGHORN SHEEP
Unit 074, The Badlands: Elko County
Report by: Kari Martin

Harvest

The single hunter in 2004 was successful in harvesting a five-year old ram with a bow.

Survey Data

A composition survey was conducted in conjunction with post-season deer flights in December 2004. A total of 42 bighorns was classified which included 9 rams, 18 ewes, and 15 lambs. This was the largest sample of lambs ever surveyed in this unit.

Population Status and Trend

During the summer of 1999, a sick bighorn sheep appeared in the O'Neil Basin. Subsequent pathology revealed a *Pasteurella* infection. A series of helicopter surveys subsequent to the discovery of the sick sheep revealed a dramatic decrease in the bighorn sheep population. For the next few years very few lambs were observed and it appeared that none were recruited into the population. However, it now appears the bighorn population has started to recover from the disease event, with a record number of lambs observed this year. A hunt is again scheduled for the 2005-hunting season.

ROCKY MOUNTAIN BIGHORN SHEEP
Unit 101, East Humboldt Range: Elko County
Report by: Tony Wasley

For specific 2004 hunting season results, please refer to Harvest Tables in the Appendix Section.

Survey Data

Summer helicopter surveys were conducted in early August 2004. A total of 123 sheep was observed with 52 rams/100 ewes/85 lambs. The population has distributed itself throughout the East Humboldt Range, capitalizing on excellent summer ranges and good winter ranges.

Weather and Habitat

The Rocky Mountain bighorn sheep of the East Humboldt Range should benefit from above average snow pack this year. These sheep live amongst the higher elevations and steeper slopes in the mountains. Fortunately, snow banks accumulate throughout the winter and sustain the high mountain meadows on which bighorn sheep depend for most of the hot and dry summer months. The accumulated snow pack should help to provide more than adequate habitat conditions to support bighorn sheep. The bighorn sheep in the East Humboldt Range are more limited by winter range and could be negatively impacted by heavy spring snow loads covering their forage for prolonged periods. However, over the past few winters, the sheep have discovered new winter range that provides them with excellent green up in the spring. As long as moderate winters persist and sufficient snowfall occurs in the upper elevations, the sheep should continue to thrive.

Population Status and Trend

The bighorn sheep population in the East Humboldt Range continues to do well (Figure 1). Sheep were first released in the winter of 1992 and each year they appear to learn more about the available habitats and resources in the East Humboldt Range. It is expected that the herd will continue to adopt traditional summer and winter use patterns and migrations over time. The population continues to exhibit excellent lamb production, a healthy distribution of age classes, and production of high quality rams. There are no apparent reasons why this trend should not continue.

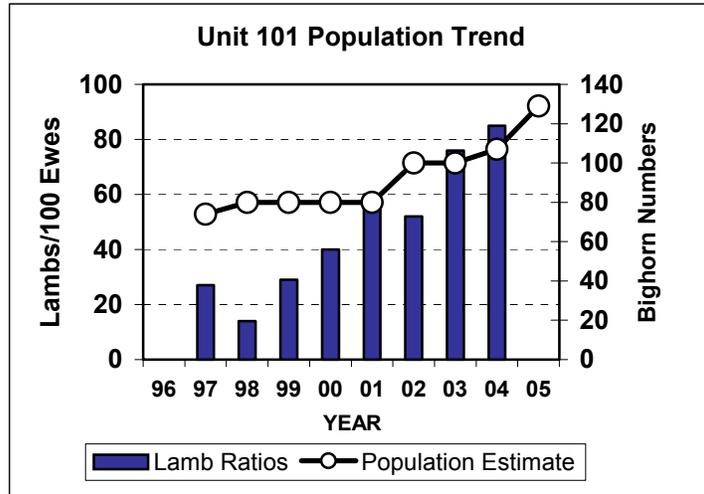


Figure 1. Observed lamb ratios and population trend for the East Humboldt Range bighorn sheep herd.

**ROCKY MOUNTAIN BIGHORN SHEEP
Unit 102, Ruby Mountains: Elko County
Report by: Tony Wasley**

Tag Quotas and Harvest Results

Two tags were issued for this hunt in 2004. 2003 was the first year tags were issued for this hunt since 1996. The 1996 tag was only the second tag issued. The first tag was issued in 1995. Unfortunately, this herd experienced a catastrophic die-off during 1996-1997 and has been rebuilding ever since. For specific 2004 hunting season results, please refer to Harvest Tables in the Appendix Section.

Survey Data

Summer helicopter surveys were conducted in early August 2004. A total of 105 sheep was observed, with 51 rams/100 ewes/40 lambs. The survey size exceeds those recorded prior to the 1996-97 die-off.

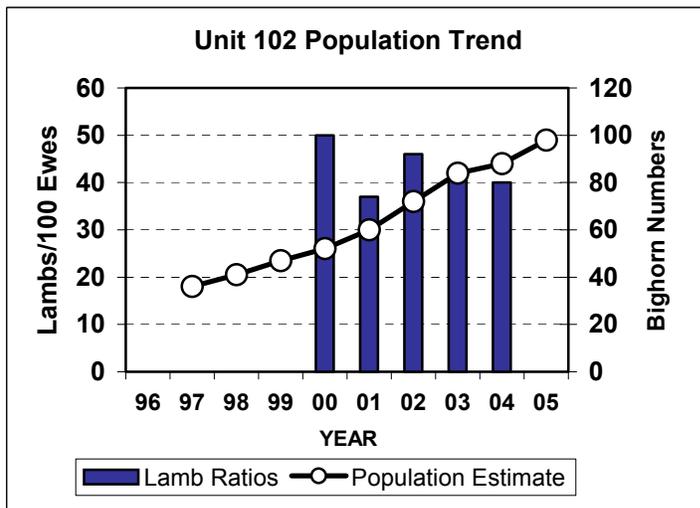


Figure 1. Observed lamb ratios and population trend for the Ruby Mountains bighorn sheep herd.

The population has rebuilt itself well and has distributed itself throughout the Ruby Mountains capitalizing on excellent summer ranges and historic winter ranges.

Weather and Habitat

The sheep live amongst the higher elevations and steeper slopes in the mountains. Fortunately, snow banks accumulate throughout the winter and sustain the high mountain meadows and riparian areas on which bighorn sheep depend for most of the hot and dry summer months. Even in the dry years with little precipitation, sufficient snow usually falls in the high country to provide adequate habitat for bighorn sheep. The bighorn sheep in

the Rubies are more limited by winter range and can be negatively impacted by heavy spring snow loads covering their forage or prolonging winter conditions. However, over the past few winters, these sheep have recovered nicely and have reacquainted themselves with their previously used winter ranges that provide them with excellent green-up in the spring. As long as moderate winters persist and sufficient snowfall occurs in the upper elevations, the sheep should continue to thrive.

Population Status and Trend

The bighorn sheep population in the Rubies has recovered very well (Figure 1). It is expected that the herd will continue to recover and hopefully exceed pre-die-off numbers. The population is well distributed on both winter ranges and summer ranges and, barring a second catastrophic event, should continue to provide unique viewing and hunting opportunities to those visiting the Ruby Mountains.

MOUNTAIN GOAT

MOUNTAIN GOAT

Unit 101, East Humboldt Mountains: Elko County

Unit 102, Ruby Mountains: Elko County

Unit 103, South Ruby Mountains: Elko and White Pine Counties

Report by: Tony Wasley

Tag Quotas and Harvest Results

Goat tags increased from 11 in 1999 and 18 in 2000 to 23 in 2001 - 2004. Success continues to be good and most hunters reported seeing many goats and several billies. For specific 2004 hunting season results, please refer to Harvest Tables in the Appendix Section.

Survey Data

Summer helicopter surveys were conducted in early August 2004. A total of 70 goats was observed in Unit 101, with a ratio of 27 young/100 adults. A total of 137 goats was observed in Unit 102, with a ratio of 36 young/100 adults. In Unit 103,

only 9 goats were located, with a ratio of 12 young/100 adults. There was a higher percentage of young goats observed in Units 101 and 102 than in Unit 103. This may be due to the drought conditions that existed for several years prior to 2004. Unit 103 is more water limited than 101 and 102. The apparent reduction in reproduction in Unit 103 for the last two years suggests this population may be experiencing

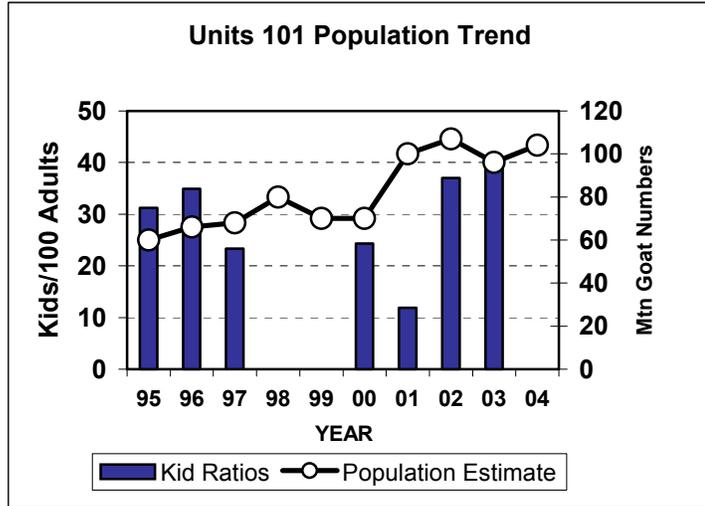


Figure 1. Observed kid ratios and population trend for the East Humboldt Range mountain goat herd.

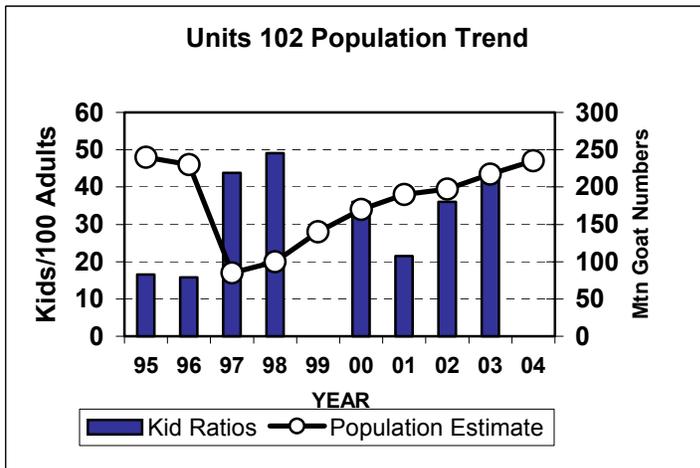


Figure 2. Observed lamb ratios and population trend for the Ruby Mountains mountain goat herd.

the greatest impacts from the previous drought conditions. Hopefully the above average snowfall that occurred in this unit during the 2004/2005 winter will provide some relief from current drought conditions.

Weather and Habitat

Goats live amongst the highest, rockiest, and steepest slopes in the mountains. Fortunately, snow banks accumulate throughout the winter and sustain preferred forage for goats during most of the hot and dry summer months. Even in the dry years with little precipitation, sufficient snow usually falls in the high country to facilitate goat survival. This year's snowfall should allow goats to utilize

most historical use areas. The goats in Nevada, like most goat populations, are more limited by winter range and heavy spring snow loads that cover their forage, limit their movements, or increase their

chances of fatalities from falls and avalanches. As long as mild to moderate winters persist and sufficient snowfall occurs in the upper elevations, the goats should remain at stable levels.

Population Status and Trend

Goat populations are exhibiting a stable to upward trend in all three units (Figures 1 and 2). According to hunter reports, biologist observations, and aerial surveys, goats appear to be doing very well. There are no apparent reasons why we should not continue to enjoy the increased opportunity that this unique trophy species offers.

MOUNTAIN LION

MOUNTAIN LION

Western Region: Units 011–015, 021, 022, 031, 032, 034, 035, 041–045, 051, 181–184, 201–206, 192, 194–196, and 291

Report By: Carl Lackey

Hunting Season Dates

Nevada's 2004-2005 mountain lion season in the western region began on March 1, 2004 and ended on February 28, 2005. This marked the second year where hunt area boundaries, and therefore quotas, were based upon the Department's regional boundaries instead of unit boundaries. The quota established by the Wildlife Commission for the Department's western region was 114 lions. This same quota was in effect the last two years. Area closures, of which there weren't any, can be accomplished with the use of a toll free hotline informing callers of pertinent information.

Implementation eight years ago of the Comprehensive Mountain Lion Species Management Plan induced certain modifications to how the lion hunt proceeded. These changes include over-the-counter tag sales, a reduction in tag fees, and an increased quota. Additionally, the 2004-05 year represents the fourth year-long season (year-long seasons were adopted by the commission in 2001). Thus far, these changes have not had a significant effect on the total lion harvest in the western region (Table 1). Note: Lion mortality data will continue to be calculated according to area groups to maintain this reports consistency and presentation.

Table 1 - Comparison of Sport Harvest by area groups for the last five years

Area Group	2000-01	2001-02	2002-03	2003-04	2004-05
Areas 1, 2, 19	20	12	14	25	12
Areas 3, 4, 5	26	20	21	18	16
Areas 18, 20, 29	11	7	5	5	5
Totals	57	39	40	48	33

Harvest

Weather conditions were favorable this year for lion hunters, providing plenty of snowy conditions for tracking. The amount of snow received in parts of the state in January may have kept some hunters from being afield. Overall, hunter interest has remained stable the past few years. Analyzing all data available for this report period, biologists have recorded 47 mountain lion mortalities for the western region (Table 2), a 30% decrease from last year. This includes 33 animals taken under valid sport tags, 6 by Wildlife Services, 6 in private depreddations, and 2 accidental trapping mortalities.

Table 2 – All Mountain Lion Mortalities by Type / Distribution for 2004-2005

Management Area Groups	Harvest Objective	Sport Harvest	Wildlife Services Harvest	Other Harvest	Total Harvest
1, 2 and 19	<i>Regional</i>	12	4	4	20
3, 4 and 5	<i>Regional</i>	16	0	2	18
18, 20 and 29	<i>Regional</i>	5	2	2	9
Totals:	114	33	6	8	47

The sport harvest consisted of 22 male lions and 11 females for a ratio of 2 males/female, with average ages of 4.5 and 3.2 years respectively. Although there are some yearly fluctuations, the average ages,

total number killed and number of each sex killed has not changed significantly over past years (Table 3 and Table 4). Of the 33 lions killed in the sport hunt, 16 were guided hunts and non-resident hunters took 15. Lions killed by guided hunters averaged 3.9 years of age, and those killed by Non-residents averaged 4.3 years. Time spent by hunters actively hunting mountain lions is measured by the number of days hunted. The average was 2.9 days/hunter, an increase from last year by one day/hunter.

Typically, most lions are taken by hunters using hounds to track and tree the lion, although one of the lions taken during the sport harvest was classified as "incidental". A high majority of all lions taken during the sport harvest were killed from December to February, typically the months receiving snow and precipitation. In fact, only one lion killed in the sport harvest was taken during mid-season (April to September). At this point the year-around season does not appear to have had an affect on total harvest.

Twenty-eight of the 33 lions taken under the authority of a sport tag were killed in those management units bordering other states. This trend may be due in part to more hunters targeting this area, but is probably because of an increase in lion immigration from those states that have more restrictive or non-existent hunting pressures. Hunters took 12 lions out of unit 051, the Santa Rosa range in Humboldt County. This unit traditionally receives above average hunting pressure, but the area seems to be able to handle the pressure well, due in part to the dispersal of lions from adjacent units that receive less pressure. Of the 12 lions killed in unit 051 by hunters, 9 were guided hunts and 4 were non-residents. These lions averaged over 4 years of age.

Table 3. Sport Harvest - Sex and Age Comparisons

Season Year	# Males Harvested	# Females Harvested	Average Age Males	Average Age Females	Average Age All Lions
1996-97	16	17	4.3 yrs	3 yrs	4.0 yrs
1997-98	21	23	3.8 yrs	3.8 yrs	3.8 yrs
1998-99	24	18	3.6 yrs	3.3 yrs	3.5 yrs
1999-2000	22	16	4.2 yrs	4.4 yrs	4.3 yrs
2000-01	39	26	4.5 yrs	4.2 yrs	4.4 yrs
2001-02	27	18	3.8 yrs	3.5 yrs	3.75 yrs
2002-03	20	20	4.2 yrs	2.8 yrs	3.7 yrs
2003-04	18	30	4.1 yrs	3.5 yrs	4.0 yrs
2004-05	22	11	4.5 yrs	3.2 yrs	4.1 yrs

Wildlife Services personnel killed six lions with a sex ratio of 3 males/2 females, and one unknown. The average age of these lions was 2.6 and 5.0 years respectively. This was a considerable decrease from last year's 15 lions. All six lions were killed for depredating on domestic livestock, specifically, 40 domestic sheep resulting in an estimated loss of \$4,000. Three of the six were killed in the same incident.

Six lions were killed under private depredation incidents. Two of these cases involved herders protecting their sheep, although in neither case were sheep kills documented. Another incident involved an upland game hunter who shot a female lion with two juveniles that were reportedly stalking his dog.

All salvageable lion hides from around the state are skinned, dried and sent to the western region where they are then sold at the Nevada Trapper's Association annual fur sale in Fallon. A total of 29 hides were sold this year bringing an average price of \$84. Several skulls were also sold at the fur sale, bringing an average of about \$45.

There were only 12 lion complaints this year compared to 16 in 2003. NDOW personnel spent a total of 4 hours on these calls. No miles were expended. As is usually the case, all lion complaints were actually reports of sightings and/or tracks. Very few of these could be confirmed as lions by NDOW. The majority of these reports were probably a consequence of mistaken identity attributed to either dogs or deer. Advice is almost always given over the phone or by mail in these cases. For cases of domestic pet or livestock loss the caller is referred to Wildlife Services.

Conclusions

Reports from guides and long-time lion hunters, as well as biologist observations and harvest reports indicate that north western Nevada's mountain lion population is maintaining stable levels in line with the prey base. Prey species have been adequate to maintain a healthy lion population, although at somewhat lower numbers. Certain areas of the western region have been subjected to severe habitat degradation, both by urbanization along the Carson Front and by wildfires. These impacts to deer winter range continue to have adverse effects on local lion populations and dispersal of juvenile mountain lions.

Harvest mortality averages for the last several years (Table 4), along with age and sex ratios of all harvested lions statewide indicate a stable population capable of maintaining current harvest levels. Based on past years it is unlikely that regulation changes or quota increases will alter the number of lions killed annually. Typically less than 50% of the total harvest objective is met.

NDOW needs to gather more information on the lion population through survey or population inventory. Research is needed to accomplish these goals. All NDOW personnel that check in harvested lions should strive to gather as much data off each individual lion as possible, including hair, tissue and tooth samples. The current harvest data, which is anecdotal at best, will not be adequate to address all the management issues facing NDOW in the future.

Table 4. Ten Year Mountain Lion Harvest Trend – All known mortalities

Season Year	Season Length	Harvest Objectives	Sport Harvest	Wildlife Services Harvest	Other Harvest	Total Harvest
1995-96	213	57	21	8	5	34
1996-97	212	69	28	5	0	33
1997-98	212	73	34	9	5	48
1998-99	212	88	30	10	2	42
1999-2000	213	90	30	5	3	38
2000-01	272	86	57	7	1	65
2001-02	365	100	39	6	2	47
2002-03	212	114	40	5	3	48
2003-04	365	114	48	15	3	66
2004-05	365	114	33	6	8	47
Averages	264	91	36	8	3	47

MOUNTAIN LION**Eastern Region: Units 061-068, 071-079, 081, 101-108, 111-115, 121, 131-134, 141-145, 151-155****Report By: Sid Eaton****Harvest**

The 2004-05 mountain lion season lasted 365 days, opening March 1, 2004 and closing February 28, 2005. The 2003-04 season was also 365 days long. Sport harvest objectives were allotted to large management unit groups encompassing most of the Eastern Region. The single exception was Unit 079(Pilot Peak) due to interstate cooperative agreements with the State of Utah. Regulation changes during 1997 permitted each lion hunter to purchase two tags. Area closures were accomplished by informing hunters with a toll free "Mountain Lion Hotline." Hunter participation in the Eastern Region appeared to be somewhat less than to previous years.

The 2004-05 mountain lion harvest objective for the Eastern Region was 167, the same as last year. The previous five-year-average harvest objective for the Eastern Region was 149. Harvest objective increases since 1997 were in response to healthy lion populations and public comment received during extensive public review of the Mountain Lion Species Management Plan. The vast majority of public response indicated that lion numbers were too high and should be managed at lower levels.

Mountain lion harvest figures had been tabulated on a July 1 through June 30 fiscal year basis but with recent changes in season dates, the reporting period has been changed to March 1 to the last day of February (Table 1). Regional sport harvest totaled 59 lions in 2004-05 compared to 115 in 2003-04. The 2004-05 sport harvest composition was 37 males and 22 females for a ratio of 1.7 males/female compared to 1.2 for 2003-04. The previous five-year-average (2000-2004) sport harvest was 88, composed of 52 males and 36 females for a ratio of 1.4 males/female.

Table 1 - Comparison of Eastern Region Sport Harvest by area groups for the last five years

Unit Group	1999-2000	2000-01	2001-02	2002-03	2003-04	5 Year Average	2004-05
066	2	2	2	0	0	1.2	0
061-068	12	16	18	14	22	16.4	6
065		4	4	3	3	2.8	0
071-081	15	20	25	17	45	24.4	14
079	1	3	0	0	0	0.8	0
101,105,106,107	1	6	4	2	7	4.0	5
102,103,104,108	6	11	14	7	11	9.8	9
111/112	11	11	8	6	12	10	10
113,114,115	2	7	8	1	5	4.6	3
121	2	5	0	5	1	2.6	2
131-134	1	3	5	3	2	2.8	2
141	2	1	1	0	1	1.0	0
142-145	3	4	8	4	5	4.8	5
151,152,154,155	3	7	1	4	1	3.2	3
Eastern Region Total	61	100	98	66	115	88	59

Table 2 – All Eastern Region Mountain Lion Mortalities by Type / Distribution for 2004-2005

Unit Groups	Harvest Objective	Sport Harvest	Depredation Harvest	Other Harvest	Total Harvest
066	<i>Regional</i>	0	0	1	1
061-068	<i>Regional</i>	6	1	2	9
065	<i>Regional</i>	0	1	0	1
071-081	<i>Regional</i>	14	0	0	14
079	4	0	0	0	0
101,105,106,107	<i>Regional</i>	5	2	1	8
102,103,104,108	<i>Regional</i>	9	2	0	11
111/112	<i>Regional</i>	10	3	0	13
113,114,115	<i>Regional</i>	3	1	0	4
121	<i>Regional</i>	2	0	0	2
131-134	<i>Regional</i>	2	0	0	2
141	<i>Regional</i>	0	0	0	0
142-145	<i>Regional</i>	5	0	3	8
151,152,154,155	<i>Regional</i>	3	0	0	3
Totals:	167	59	10	7	76

Regional depredation complaints in 2004-05 resulted in the removal of ten lions compared to nine in 2003-04 (Table 2). Seven lions were destroyed in response to the loss of a total of 33 domestic sheep on public land. Two lions were killed as part of an ongoing predator-prey research project in Management area 10. One lion was removed due to public safety reasons near a school in Baker. The composition of the 2004-05 depredation harvest was five males and five females. Depredation harvest averaged 10 (range 5 to 17) during the previous five years (2000-2004).

Since March 1, 2004, the documented lion harvest in the Eastern Region including both sport harvest and Animal Damage Control removal has totaled 69 lions including 42 males and 27 females. The regional harvest for the past five years has averaged 98 lions. Above average snowfall and cold winter temperatures resulted in good tracking conditions and good hunter success this year.

Other Mortalities

Seven other lion mortalities were documented within the Eastern Region this year (1 road-kills, 3 illegal harvests and 3 accidentals).

Population Trend

Mountain lion habitat remains in good condition throughout most of the Eastern Region with an ample prey base and minimal overall loss of habitat due to development activities. Range fires during previous summers converted thousands of acres of deer habitat to vegetation dominated by grasses and annuals in the Eastern Region. Some important deer summer ranges and some key deer winter ranges burned. The future status and trend of deer herds in the burned areas will have the most significant impact on lion productivity and survivability. Documented mortality in the form of harvest and accidental loss has not exceeded the reproductive/recruitment capabilities of the mountain lion resource. The harvest objective for the Eastern Region has not been met in many years. The average age of lions taken by sport hunters was 4.2 and has varied little in the past eight years (Table 3). The average age of all recorded lion mortalities was 4.1 and includes sport harvest, depredation harvest and other mortalities. The overall sex ratio was 1.5 males/female compared to 1.2 males/female last year. Based on population estimates, sex

and age ratios in the harvest, long-term harvest data analysis, and recorded mortality, the overall Eastern Region mountain lion population trend is considered to be stable (Tables 3 and 4).

Table 3. Eastern Region Sport Harvest - Sex And Age Comparisons Since 1996

Season Year	# Males Harvested	# Females Harvested	Average Age Males	Average Age Females	Average Age All Lions
1996-97	56	35	4.8	4.1	4.5
1997-98	71	57	4.1	4.6	4.3
1998-99	51	28	3.8	4.2	4.0
1999-2000	40	21	3.9	3.9	3.9
2000-01	53	47	4.4	4.5	4.5
2001-02	60	38	4.3	4.1	4.3
2002-03	44	22	4.3	4.9	4.5
2003-04	61	54	4.6	4.2	4.4
2004-05	37	22	4.3	3.9	4.1

Table 4. Ten Year Eastern Region Mountain Lion Harvest Trend – All known mortalities

Season Year	Season Length	Harvest Objectives	Sport Harvest	Depredation Harvest	Other Harvest	Total Harvest
1993-94	212	90	88	37	8	133
1994-95	212	91	86	16	4	106
1995-96	213	102	78	14	5	98
1996-97	212	99	91	15	1	107
1997-98	212	130	128	15	2	145
1998-99	212	145	79	19	2	100
1999-2000	213	137	61	10	3	74
2000-01	272	137	100	17	1	118
2001-02	365	150	98	7	3	108
2002-03	212	167	66	6	3	75
2003-04	365	167	115	9	0	124
2004-05	365	167	59	10	7	76
Averages	245	127	90	15	3	108

Management Conclusions

Hunter interest and participation remained high in the Eastern Region. As usual, the majority of lions were taken in December, January and February. These three months normally provide the best hunting conditions. The sport harvest objective for the Eastern Region was 167 lions and sport hunters took 59. None of the management unit groups reached sport harvest objectives. A remaining harvest objective of 108 lions was available to hunters in the Eastern Region.

Depredation harvest increased with 10 lions removed in 2004-05 compared to 9 in 2003-04. Total documented lion mortality in the Eastern Region for the 2004-05 season, including all known causes was 76 animals compared to 123 last year (-62%).

Overall, population trends appear to be stable in the Eastern Region. There are sufficient base populations of lions to allow for adequate reproduction and population maintenance. The dispersal of lions from adjacent mountain ranges with little or no harvest mortality moderate the effects of harvest in more popular areas. The base populations of prey species on which mountain lions depend most heavily (deer) are currently at levels expected to continue to sustain lion populations. Deer populations are currently experiencing a nearly stable to slightly upward trend in the Region.

MOUNTAIN LION

Southern Region – Units 161– 164, 171-173, 211, 212, 221–223, 241–245, 251–253, 261–268, 271, 272

Report by: Michael Scott

Seasons, Tag Quotas, and Harvest Results

The 2004-2005 mountain lion season ran from March 1, 2004 through February 28, 2005 in all areas of the Southern Region, with the exception of Area 28, which remains closed to mountain lion hunting. The harvest objectives in all areas were combined to form a regional harvest objective of 68 lions. Table 1 displays a comparison of sport harvest for the last five years. Table 2 displays the regional lion harvest for the March 1, 2004 – February 28, 2005 season.

Table 1 - Comparison of Southern Region Sport Harvest by area groups for the last five years

Unit Group	2000-01	2001-02	2002-03	2003-04	2004-05
161-164	2	1	0	6	0
171-173	12	9	5	7	3
211-212	1	0	0	0	0
221-223	7	5	4	7	5
231	6	7	6	4	0
241-245	7	3	3	2	2
251-253	1	0	0	0	0
261-268	3	1	2	3	3
271-272	0	0	0	0	0
Southern Region Total	39	26	20	29	13

Table 2: All Southern Region Mountain Lion Mortalities by Type/ Distribution for 2004-2005

Unit Groups	Harvest Objective	Sport Harvest	Depredation Harvest	Other Harvest	Total Harvest
161-164	Regional	0	0	0	0
171-173	<i>Regional</i>	3	0	0	3
211-212	<i>Regional</i>	0	0	0	0
221-223	<i>Regional</i>	5	0	0	5
231	<i>Regional</i>	0	0	0	0
241-245	<i>Regional</i>	2	0	0	2
251-253	<i>Regional</i>	0	0	0	0
261-268	<i>Regional</i>	3	0	0	3
271-272	<i>Regional</i>	0	0	0	0
TOTALS	68	13	0	0	13

Regional sport harvest for the 2004-2005 consisted of 13 lions compared to 29 lions taken during the 2003-2004 season. Of the total sport harvest of 13 lions, residents took a total of seven. No regional depredation complaints were received during the 2004-2005 season. Regional depredation complaints have averaged 4.0 (range 0 to 9) during the last five years (2000-2004).

Population Trend

The 2004-2005 southern region mountain lion harvest consisted of 6 males and 7 females for a male to female ratio of 0.9. The five-year average is 1.3 males per female. The average age of lions taken during the 2004-2005 season averaged 5.9 years for males (compared to 3.4 in 2003-2004), and 3.6 years for females (compared to 3.8 in 2003-2004). Number of lions taken and male to female ratio decreased, while average age increased compared to the previous year. The total harvest of 13 lions marks the lowest harvest in the Southern Region since the mid-1980's. It is somewhat unusual that no lions were harvested from Areas 16 or 23, however, heavy snows during December, January, and February (when 80% of lions are harvested) may have precluded most hunting in these areas. Reports from sportsmen vary, as usual, from high lion densities to low lion densities throughout the region. The Southern Region did not meet or exceed the yearly harvest objective.

Table 3. Southern Region Sport Harvest - Sex And Age Comparisons Since 1997

Season Year	# Males Harvested	# Females Harvested	Average Age Males	Average Age Females	Average Age All Lions
1997-1998	27	20	4.2	4.1	4.1
1998-1999	19	15	4.6	4.9	4.7
1999-2000	20	15	4.5	4.2	4.4
2000-2001	22	20	5.0	5.5	5.2
2001-2002	13	13	4.7	2.8	3.8
2002-2003	12	8	4.6	4.5	4.6
2003-2004	18	11	4.2	4.9	4.4
2004-2005	6	7	5.9	3.6	4.7

Table 4. Ten Year Southern Region Mountain Lion Harvest Trend – All known mortalities

Season Year	Season Length	Harvest Objectives	Sport Harvest	Depredation Harvest	Other Harvest	Total Harvest
1994-95	212	92	46	5	1	52
1995-96	213	84	34	2	1	37
1996-97	212	81	24	5	0	29
1997-98	212	80	47	2	0	49
1998-99	212	80	35	1	0	36
1999-2000	213	60	36	1	0	37
2000-01	272	67	39	2	0	41
2001-02	365	67	26	9	0	35
2002-03	212	68	20	1	0	21
2003-04	365	68	29	5	3	37
2004-05	365	68	13	0	0	13
Averages	285	82	35	3.3	0.5	38.7

Management Conclusions

Mountain lion habitat remains stable throughout the Southern Region, although numerous threats are proposed that will affect mule deer habitat, which will directly and indirectly affect the mountain lion population. Above average precipitation throughout the Southern Region may allow increases in prey species for the short term. Mule deer populations, although down from long term averages, are relatively stable throughout the Southern Region and should be sufficient to maintain lion populations at harvestable levels. Increased numbers of elk and feral horses may provide alternative sources of prey in areas where deer herds have declined. The total of 13 lions taken during the 2004-2005 season is below the previous ten-year average of 35. Based on long-term harvest data analysis, the mountain lion population appears to have declined in recent years, but is still stable within the southern region.

APPENDIX

Harvest, Survey, and Population Tables

APPENDIX

HARVEST, SURVEY, AND POPULATION TABLES

TABLE 1. 2004 MULE DEER HARVEST BY POINT CLASS AND UNIT FOR ALL HUNTS	1
TABLE 2. 2004 MULE DEER HUNTER DAYS BY UNIT GROUP AND HUNT	3
TABLE 3. 2004 MULE DEER HUNTS 1000, 1100, 1201, 1101, 1120, 1115, AND 1215	4
TABLE 4. 2004 RESIDENT JUNIOR EITHER SEX MULE DEER ANY LEGAL WEAPON HUNT 1107	5
TABLE 5. 2004 RESIDENT ANTLERED MULE DEER ANY LEGAL WEAPON HUNT 1331.....	6
TABLE 6. 2004 RESIDENT ANTLERED MULE DEER MUZZLELOADER HUNT 1371	7
TABLE 7. 2004 RESIDENT ANTLERED MULE DEER ARCHERY HUNT 1341	8
TABLE 8. 2004 RESIDENT ANTLERLESS MULE DEER ANY LEGAL WEAPON HUNT 1181	9
TABLE 9. 2004 NONRESIDENT PIW ANTLERED MULE DEER ANY LEGAL WEAPON HUNT 1200	9
TABLE 10. 2004 NONRESIDENT GUIDED ANTLERED MULE DEER ANY LEGAL WEAPON HUNT 1235	10
TABLE 11. 2004 NONRESIDENT ANTLERED MULE DEER ANY LEGAL WEAPON HUNT 1331.....	11
TABLE 12. 2004 NONRESIDENT ANTLERED MULE DEER MUZZLELOADER HUNT 1371	12
TABLE 13. 2004 NONRESIDENT ANTLERED MULE DEER ARCHERY HUNT 1341	13
TABLE 14. 2004 PRONGHORN HARVEST BY GENDER FROM ALL HUNTS	14
TABLE 15. 2004 PRONGHORN HUNTER DAYS BY UNIT GROUP AND HUNT	16
TABLE 16. 2004 PRONGHORN HUNTS 2000, 2100, 2104, 2115, AND 2215	17
TABLE 17. 2004 RESIDENT BUCK PRONGHORN ANY LEGAL WEAPON HUNT 2151	18
TABLE 18. 2004 RESIDENT BUCK PRONGHORN ARCHERY HUNT 2161.....	19
TABLE 19. 2004 RESIDENT DOE PRONGHORN ANY LEGAL WEAPON HUNT 2181	19
TABLE 21. 2004 NONRESIDENT BUCK PRONGHORN ARCHERY HUNT 2261.....	20
TABLE 22. 2004 ELK HARVEST BY POINT CLASS AND UNIT FOR ALL HUNTS	21
TABLE 23. 2004 ELK HUNTER DAYS BY UNIT GROUP AND HUNT	22
TABLE 24. 2004 ELK HUNTS 4000, 4200, 4102, 4104, 4131, 4231, 4133, 4233, 4232	23
TABLE 25. 2004 RESIDENT ANTLERED ELK ANY LEGAL WEAPON HUNT 4151	24
TABLE 26. 2004 RESIDENT ANTLERED ELK MUZZLELOADER HUNT 4156.....	24
TABLE 27. 2004 RESIDENT ANTLERED ELK ARCHERY HUNT 4161	25
TABLE 28. 2004 NONRESIDENT ANTLERED ELK ANY LEGAL WEAPON HUNT 4251	25
TABLE 29. 2004 NONRESIDENT ANTLERED ELK ARCHERY HUNT 4256	25
TABLE 30. 2004 NONRESIDENT ANTLERED ELK ARCHERY HUNT 4261	25
TABLE 31. 2004 RESIDENT ANTLERLESS ELK ANY LEGAL WEAPON HUNT 4181.....	26
TABLE 32. 2004 RESIDENT ANTLERLESS ELK MUZZLELOADER HUNT 4176.....	26
TABLE 33. 2004 RESIDENT ANTLERLESS ELK ARCHERY HUNT 4111	26
TABLE 34. 2004 DESERT BIGHORN SHEEP HUNTS 3000, 3100 AND 3200.....	27
TABLE 35. 2004 RESIDENT DESERT BIGHORN SHEEP HUNT 3151	27

TABLE 36. 2004 NONRESIDENT DESERT BIGHORN SHEEP HUNT 3251	28
TABLE 37. 2004 CALIFORNIA BIGHORN SHEEP HUNTS 8000 AND 8200.....	28
TABLE 38. 2004 RESIDENT CALIFORNIA BIGHORN SHEEP HUNT 8151	28
TABLE 39. 2004 NONRESIDENT CALIFORNIA BIGHORN SHEEP HUNT 8251	29
TABLE 40. 2004 RESIDENT ROCKY MOUNTAIN BIGHORN SHEEP HUNT 9151	29
TABLE 41. 2004 MOUNTAIN GOAT HUNTS 7000, 7151, AND 7251	29
TABLE 42. 2004 DESERT BIGHORN SHEEP – HUNTER CHECKOUT SUMMARY	30
TABLE 43. 2004 CALIFORNIA BIGHORN SHEEP – HUNTER CHECKOUT SUMMARY	35
TABLE 44. 2004 ROCKY MOUNTAIN BIGHORN SHEEP – HUNTER CHECKOUT SUMMARY	36
TABLE 45. 1992 - 2004 DESERT BIGHORN SHEEP HUNT STATS BY UNIT GROUP	37
TABLE 46. 1992 - 2004 CALIFORNIA BIGHORN SHEEP HUNT STATS BY UNIT.....	38
TABLE 47. 1999 - 2004 MOUNTAIN GOAT HARVEST STATS BY UNIT AND YEAR	38
TABLE 48. BIGHORN SHEEP CHECKOUT SUMMARY HISTORY, 1994 – 2004.....	39
TABLE 49. FALL 2004 AND SPRING 2005 MULE DEER SURVEY COMPOSITION.....	40
TABLE 50. FALL 2004 PRONGHORN SURVEY COMPOSITION.....	41
TABLE 51. EARLY FALL 2004 DESERT BIGHORN SHEEP SURVEY COMPOSITION.....	42
TABLE 52. LATE SUMMER 2004 - WINTER 2005 CALIFORNIA BIGHORN SHEEP SURVEY COMPOSITION	43
TABLE 53. JULY OR DECEMBER 2004 ROCKY MOUNTAIN BIGHORN SHEEP SURVEY COMPOSITION	43
TABLE 54. SUMMER 2004 MOUNTAIN GOAT SURVEY COMPOSITION	44
TABLE 55. WINTER 2004 - 2005 ROCKY MOUNTAIN ELK SURVEY COMPOSITION	44
TABLE 56. 2005 MULE DEER POPULATION ESTIMATES.....	45
TABLE 57. 2005 ROCKY MOUNTAIN ELK POPULATION ESTIMATES.....	46
TABLE 58. 2005 PRONGHORN POPULATION ESTIMATES.....	47
TABLE 59 - 2005 DESERT BIGHORN POPULATION ESTIMATES	48
TABLE 60 - 2005 CALIFORNIA BIGHORN POPULATION ESTIMATES	48
TABLE 61 - 2005 ROCKY MOUNTAIN BIGHORN POPULATION ESTIMATES.....	48
TABLE 62 - 2005 MOUNTAIN GOAT POPULATION ESTIMATES	48
TABLE 63. BIG GAME POPULATION ESTIMATE HISTORY	49
TABLE 64. BIG GAME TAG SALES AND HARVEST HISTORY BY SPECIES	50
TABLE 65 - HUNT NUMBER DESCRIPTIONS.....	51
TABLE 66. MARCH 2004 – FEBRUARY 2005 STATEWIDE MOUNTAIN LION HARVEST BY SEX AND MANAGEMENT AREA	53
TABLE 67. 2004 – 2005 MOUNTAIN LION BY HARVEST AND MORTALITY TYPE	53
TABLE 68. MOUNTAIN LION TAG SALES, SPORT HUNTER HARVEST, AND HUNTER SUCCESS BY CLASS OF HUNTER HISTORY.....	54
TABLE 69. MOUNTAIN LION DEPREDATION HARVEST (USDA–WILDLIFE SERVICES)	55
NEVADA HUNT UNIT REFERENCE MAP.....	56

TABLE 1. 2004 MULE DEER HARVEST BY POINT CLASS AND UNIT FOR ALL HUNTS

Unit of Harvest	Does	Fawns	Bucks by Antler Points						Unit Buck Total	Unit Group Buck Total	% 4+ pts	TOTAL DEER
			1	2	3	4	5	6+				
011				7	15	18	4	1	45			
012	1			4	13	16	4	4	41			
013				3	8	7	5	1	24	110	55%	111
014			1	2	8	15	3		29	29	62%	29
015	1		1	3	3	4	2		13	13	46%	14
021	2			2	12	9	4		27	27	48%	29
022	1		1	5	9	16	3		34	34	56%	35
031	1		3	15	21	38	3	1	81	81	52%	82
032	4		2	14	19	10	3		48	48	27%	52
033	4		1	14	34	39	7	1	96	96	49%	100
034	4			5	11	13			29	29	45%	33
035			2	8	15	13	3	1	42	42	40%	42
041	2		1	1	6	5			13			
042			1	3	5	4	2		15	28	39%	30
043	1		3	23	14	11	5		56			
044	1		1	8	5	6			20			
045	2			1	5	10	1		17			
046	4		1	4	10	9	4		28	121	38%	129
051	62	4	12	69	54	54	14	2	205	205	34%	271
061	1		2	30	21	34	3	1	91			
062	8		5	43	46	73	10	1	178			
064	1			5	6	9			20			
066	2			3	5	8	1		17			
067			3	6	6	10			25			
068				2	7	8	3	1	21	352	46%	364
065				5	6	14		1	26	26	58%	26
071	4		2	28	35	36	3	2	106			
072	3	1	4	24	43	34	5		110			
073	2		1	18	10	10	1		40			
074				11	8	10			29			
075	3		3	42	47	33	3	1	129			
076				9	12	9	1		31			
077	7		4	51	29	17			101			
078			1	2	4	2			9			
079			1	3	5	5	1		15	570	30%	590
081				6	5	14	2	1	28	28	61%	28
101	23	1	10	100	71	97	16	5	299			
102	38		34	218	197	210	24	8	691			
103	15		23	77	62	52	7	2	223			
104	6		6	24	14	16	2		62			
105				1	1	4			6			
106	1			7	2	3			12			
107	1			1	2	1			4			
108	6		4	19	15	20	1	1	60	1357	35%	1448
111	70		56	155	90	82	5	2	390			
112	1		2	2	6	1			11			
113	5		5	14	6	5	2		32	433	22%	509

Unit of Harvest	Does	Fawns	Bucks by Antler Points						Unit Buck Total	Unit Group Buck Total	% 4+ pts	TOTAL DEER
			1	2	3	4	5	6+				
114	19	3	1	14	11	36	9		71			
115	12		3	16	27	46	9	4	105	176	59%	210
121	2		5	49	39	52	4	4	153	153	39%	155
131	3		3	21	19	31	5	1	80			
132	1		2	10	6	16	5	2	41			
133				4	3	7	2		16			
134	1		1		1	1			3	140	50%	145
141	11		7	20	19	26	3	2	77			
142	2		2	10	4	9	2		27			
143	2			11	11	5	3		30			
144	32	4	6	59	39	33	4	4	145			
145	4		2	19	9	9			39	318	31%	373
151	5		1	21	28	15	1	1	67			
152	1	1	1	13	16	15			45			
154	1		1	7	6	9			23			
155	2		2	7	12	14	2		37	172	33%	182
161	9		3	33	22	32	4	3	97			
162	3		2	14	18	22	4	3	63			
163	1		1	4	8	8	1	1	23			
164	1		3		3	7			13	196	43%	210
171	4		4	19	27	28	4	1	83			
172	2			6	11	12	1		30			
173	17		10	70	52	61	12	3	208	321	38%	344
181	3			5	16	5	1		27			
182				2	3				5			
183	1			1	6	12	2		21			
184	2		1	8	4	7			20	73	37%	79
192	4	1	1	9	14	22		2	48	48	50%	53
194	3			1	15	18	5	3	42			
196	6		2	2	8	18	2		32	74	62%	83
195			1	4	11	22	2		40	40	60%	40
201	3		6	17	19	20	4	2	68			
204	1	1	3	5	9	8	1		26	94	37%	99
202	1		4	7	11	11	1	1	35			
205	1			4	1	5		1	11			
206			1	2	3	2			8	54	39%	56
203	4	3	2	9	18	9	2	1	41	41	29%	48
211				1	3	3			7			
212			1	1	1	8		1	12	19	63%	19
221	1		1	17	9	21	6	1	55			
222	7		4	22	25	61	10	3	125			
223	2		1	5	4	11	3	3	27	207	57%	217
231	7		6	23	41	53	7	6	136	136	49%	143
241	1			2	9	11	5	4	31			
242			1	8	4	18	7	4	42			
243						1			1			
245						2	1		3	77	69%	78
251	1		1	7	6	9	1	1	25	25	44%	26
262	4		1	8	3	7	1	1	21			
263						2			2	23	48%	27
271				2		4			6			
272				1		3	1		5	11	73%	11
291	4			9	11	16			36	36	44%	40
TOTAL	478	19	293	1,706	1,673	1,997	294	100	6,063		39%	6,560

TABLE 2. 2004 MULE DEER HUNTER DAYS BY UNIT GROUP AND HUNT

Unit Group	1000 & 1200	1100 & 1201	1101	1107	1115 & 1215	1181	1235	1331	1341	1371	TOTAL
011- 013			175	37			15	580	163	81	1,051
014			39				9	79	44	18	189
015			39	7			7	138	21	14	226
021			29	24			1	117	48	23	242
022			96				3	342	86	13	540
031			123	31			20	598	101	29	902
032		11	116	23			11	398	49	15	623
033			103				27	656	108	120	1,014
034			135	33			10	108	42	15	343
035			79	40			13	198	58	39	427
041, 042			104	1			11	192	122	14	444
043 - 046			217	1			15	566	216	116	1,131
051			618	68	235		7	1,975	439	140	3,482
061, 062, 064, 066 - 068			522	10			63	2,028	432	148	3,203
065				5			6	154	105	45	315
071 - 079			856				87	3,582	336	383	5,244
081							6	173	32	9	220
101 - 108			1,695	171		74	303	10,886	3,574	889	17,592
111 - 113			1,040	11			82	3,034	202	209	4,578
114, 115		85	113	129		38	18	730	323	305	1,741
121			126	5			11	674	121	49	986
131 - 134			233	35			30	642	112	82	1,134
141 - 145			942	20		108	75	2,657	568	102	4,472
151 - 155			344	77			21	1,101	672	161	2,376
161 - 164			425				35	1,348	482	163	2,453
171 - 173			756				80	2,576	872	337	4,621
181 - 184			344				15	941	223	65	1,588
192			96			17	15	201	90	15	434
194, 196			65			15	3	186	121	38	428
195			55					195	123	43	416
201, 204			82				2	414	230	8	736
202, 205, 206			97				3	339	47	19	505
203			97			91	5	306	329		828
211, 212			39					230	13	10	292
221 - 223			458	7			44	1,395	397	67	2,368
231			411	248			26	518	224	64	1,491
241 - 245			113	12			13	376	80	45	639
251 - 253			49					174	20	35	278
261 - 268			74					239	64	18	395
271			10				5	134	25	13	187
291			86	15		13	3	209	88	19	433
Statewide	273										273
TOTAL	273	96	11,001	1,010	235	356	1,100	41,389	11,402	3,978	70,840

TABLE 3. 2004 MULE DEER HUNTS 1000, 1100, 1201, 1101, 1120, 1115, AND 1215

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
RESIDENT PIW ANTLERED MULE DEER ANY LEGAL WEAPON HUNT 1000						
STATEWIDE	2,726	22	124 to 1	100%	12	55%
HERITAGE MULE DEER ANY LEGAL WEAPON HUNT 1100 AND 1201						
STATEWIDE		2		0%	0	0%
RESIDENT ANTLERLESS MULE DEER DEPREDATION HUNT 1101						
032	24	10	3 to 1	100%	4	40%
114, 115 Early	35	25	2 to 1	100%	17	68%
114, 115 Late	7	25	1 to 1	96%	12	48%
TOTALS	66	60	2 to 1	98%	33	55%
RESIDENT ANTLERLESS MULE DEER PRIVATE LAND DEPREDATION HUNT 1120						
051	11	90	1 to 1	94%	54	60%
RESIDENT AND NONRESIDENT MULE DEER LANDOWNER DAMAGE COMPENSATION HUNT 1115 AND 1215						
011 – 013		11		91%	6	55%
015		1		100%	0	0%
021, 022		1		100%	1	100%
031		6		100%	3	50%
032		5		100%	2	40%
034		11		100%	10	91%
035		5		100%	4	80%
042		1		100%	1	100%
044		1		100%	1	100%
051		11		100%	9	82%
062		2		100%	2	100%
065		1		100%	0	0%
068		1		100%	0	0%
101		2		100%	2	100%
102		28		100%	26	93%
111		4		100%	2	50%
114, 115		22		95%	14	64%
121		1		100%	1	100%
131, 132		7		100%	4	57%
142, 144		5		100%	4	80%
152, 154		7		100%	6	86%
223		1		100%	0	0%
231		32		100%	21	66%
241, 242		2		100%	0	0%
291		2		100%	1	50%
TOTALS		170		99%	120	71%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 4. 2004 RESIDENT JUNIOR EITHER SEX MULE DEER ANY LEGAL WEAPON HUNT 1107

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***	% Bucks
011 - 013	72	41	2 to 1	98%	27	66%	96%
014	31	10	4 to 1	100%	8	80%	100%
015	15	9	2 to 1	100%	3	33%	67%
021	21	7	3 to 1	100%	4	57%	50%
022	32	13	3 to 1	100%	10	77%	90%
031	42	35	2 to 1	94%	20	57%	95%
032	32	31	2 to 1	100%	12	39%	100%
033	54	30	2 to 1	97%	20	67%	80%
034	31	31	1 to 1	94%	15	48%	73%
035	23	21	2 to 1	95%	14	67%	100%
041, 042	30	23	2 to 1	100%	12	52%	83%
043 - 046	67	56	2 to 1	91%	34	61%	76%
051	130	138	1 to 1	96%	58	42%	79%
061, 062, 064, 066 - 068	181	155	2 to 1	94%	88	57%	86%
071 - 079	214	201	2 to 1	95%	133	66%	86%
101 - 108 Early	187	331	2 to 1	95%	152	46%	57%
101 - 108 Late	175	159	2 to 1	96%	110	69%	95%
111 - 113	322	314	2 to 1	93%	174	55%	56%
114, 115	35	22	2 to 1	95%	15	68%	93%
121	35	28	2 to 1	100%	23	82%	91%
131 - 134	89	56	2 to 1	89%	32	57%	84%
141 - 145	180	207	2 to 1	95%	119	57%	75%
151, 152, 154, 155	81	73	2 to 1	97%	57	78%	84%
161 - 164	109	105	2 to 1	95%	62	59%	77%
171 - 173	186	181	2 to 1	93%	91	50%	75%
181 - 184	54	53	2 to 1	89%	23	43%	74%
192	25	17	2 to 1	100%	14	82%	100%
194, 196	95	22	5 to 1	91%	18	82%	100%
195	34	12	3 to 1	100%	10	83%	100%
201, 204	45	29	2 to 1	100%	25	86%	84%
202, 205, 206	31	22	2 to 1	100%	10	45%	80%
203	20	17	2 to 1	100%	9	53%	100%
211, 212	15	17	1 to 1	76%	6	35%	100%
221 - 223	119	90	2 to 1	97%	50	56%	80%
231	78	45	2 to 1	93%	35	78%	80%
241 - 245	72	34	3 to 1	88%	20	59%	95%
251 - 253	12	16	1 to 1	94%	4	25%	75%
261 - 268	38	25	2 to 1	92%	11	44%	64%
271, 272	11	8	2 to 1	88%	2	25%	100%
291	28	14	2 to 1	100%	8	57%	75%
TOTALS	3,051	2,698	2 to 1	95%	1,538	57%	78%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 5. 2004 RESIDENT ANTLERED MULE DEER ANY LEGAL WEAPON HUNT 1331

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
011- 013	1,060	101	11 to 1	98%	57	56%
014	546	20	28 to 1	100%	14	70%
015	225	23	10 to 1	100%	9	39%
021	256	26	10 to 1	100%	21	81%
022	262	39	7 to 1	97%	18	46%
031	508	86	6 to 1	99%	47	55%
032	177	81	3 to 1	96%	30	37%
033 Early	381	50	8 to 1	100%	22	44%
033 Late	552	50	12 to 1	100%	31	62%
034	106	23	5 to 1	100%	4	17%
035	167	39	5 to 1	90%	19	49%
041, 042	233	41	6 to 1	93%	12	29%
043 - 046	390	121	4 to 1	97%	69	57%
051	757	338	3 to 1	94%	110	33%
061, 062, 064, 066 - 068	1,744	441	4 to 1	96%	216	49%
065	179	27	7 to 1	96%	19	70%
071 - 079	1,788	707	3 to 1	96%	370	52%
081	189	35	6 to 1	97%	23	66%
101 - 108, Early	2,605	2,011	2 to 1	94%	549	27%
101 - 108, Late	1,477	503	3 to 1	95%	326	65%
111 - 113 Early	1,465	692	3 to 1	94%	243	35%
111 - 113 Late	707	51	14 to 1	100%	31	61%
114, 115	401	144	3 to 1	96%	76	53%
121	367	148	3 to 1	97%	106	72%
131 - 134	685	148	5 to 1	94%	81	55%
141 - 145	1,069	482	3 to 1	96%	184	38%
151, 152, 154, 155	538	185	3 to 1	91%	83	45%
161 - 164	805	280	3 to 1	94%	123	44%
171 - 173	1,310	474	3 to 1	96%	183	39%
181 - 184	314	155	3 to 1	92%	47	30%
192	155	32	5 to 1	94%	26	81%
194, 196	969	41	24 to 1	98%	38	93%
195	287	35	9 to 1	97%	22	63%
201, 204	344	89	4 to 1	94%	55	62%
202, 205, 206	183	66	3 to 1	91%	39	59%
203	110	47	3 to 1	96%	24	51%
211, 212	80	45	2 to 1	98%	11	24%
221 - 223	1,093	282	4 to 1	96%	128	45%
231	967	119	9 to 1	96%	57	48%
241 - 245	918	69	14 to 1	97%	51	74%
251 - 253	61	38	2 to 1	100%	17	45%
261 - 268 Early	241	50	5 to 1	96%	10	20%
261 - 268 Late	97	5	20 to 1	100%	2	40%
271, 272 Early	62	19	4 to 1	95%	5	26%
271, 272 Late	39	2	20 to 1	100%	2	100%
291	321	39	9 to 1	95%	20	51%
TOTALS	27,190	8,499	4 to 1	95%	3,630	43%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 6. 2004 RESIDENT ANTLERED MULE DEER MUZZLELOADER HUNT 1371

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
011 - 013	61	11	6 to 1	100%	8	73%
014	30	2	15 to 1	100%	0	0%
015	4	2	2 to 1	100%	1	50%
021	13	2	7 to 1	100%	0	0%
022	9	2	5 to 1	100%	1	50%
031	27	6	5 to 1	100%	4	67%
032	7	3	3 to 1	100%	1	33%
033	125	18	7 to 1	100%	6	33%
034	8	2	4 to 1	100%	0	0%
035	8	5	2 to 1	100%	2	40%
041, 042	13	2	7 to 1	100%	1	50%
043 - 046	31	21	2 to 1	100%	8	38%
051	50	35	2 to 1	94%	13	37%
061, 062, 064, 066 - 068	83	27	4 to 1	93%	9	33%
065	22	5	5 to 1	100%	2	40%
071 - 079	112	68	2 to 1	100%	26	38%
081	5	2	3 to 1	100%	2	100%
101 - 108	211	177	2 to 1	89%	33	19%
111 - 113	116	34	4 to 1	100%	14	41%
114, 115	279	54	6 to 1	94%	37	69%
121	23	11	3 to 1	100%	4	36%
131 - 134	86	15	6 to 1	100%	12	80%
141 - 145	52	19	3 to 1	89%	6	32%
151, 152, 154, 155	60	31	2 to 1	94%	11	35%
161 - 164	87	27	4 to 1	96%	9	33%
171 - 173	123	77	2 to 1	94%	19	25%
181 - 184	11	9	2 to 1	100%	1	11%
192	7	2	4 to 1	100%	0	0%
194, 196	31	2	16 to 1	100%	1	50%
195	7	4	2 to 1	100%	2	50%
201, 204	8	2	4 to 1	100%	0	0%
202, 205, 206	4	4	1 to 1	75%	2	50%
211, 212	2	2	1 to 1	100%	0	0%
221 - 223	34	12	3 to 1	100%	2	17%
231	88	17	6 to 1	82%	7	41%
241 - 245	27	3	9 to 1	100%	0	0%
251 - 253	4	4	1 to 1	100%	2	50%
261 - 268	13	4	4 to 1	100%	2	50%
271, 272	7	2	4 to 1	100%	0	0%
291	9	2	5 to 1	100%	1	50%
TOTALS	1,897	727	3 to 1	94%	249	34%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 7. 2004 RESIDENT ANTLERED MULE DEER ARCHERY HUNT 1341

UNIT GROUP	1st Choice	Tags	Draw Odds*	%	# Succ.	% Hunter
	Apps.	Sold		Return**	Hunters	Success***
011 - 013	60	27	3 to 1	96%	2	7%
014	22	5	5 to 1	100%	0	0%
015	6	2	3 to 1	100%	0	0%
021	12	5	3 to 1	100%	1	20%
022	28	8	4 to 1	100%	1	13%
031	27	16	2 to 1	94%	2	13%
032	11	8	2 to 1	88%	0	0%
033	62	15	5 to 1	93%	4	27%
034	8	8	1 to 1	88%	0	0%
035	13	11	2 to 1	100%	2	18%
041, 042	20	14	2 to 1	100%	2	14%
043 - 046	37	35	2 to 1	89%	6	17%
051	82	75	2 to 1	96%	8	11%
061, 062, 064, 066 - 068	94	69	2 to 1	93%	10	14%
065	23	13	2 to 1	92%	2	15%
071 - 079	59	54	2 to 1	96%	4	7%
081	2	2	1 to 1	100%	0	0%
101 - 108 Early	248	493	1 to 1	100%	43	9%
101 - 108 Late	98	83	2 to 1	93%	13	16%
111 - 113	105	41	3 to 1	90%	6	15%
114, 115	63	56	2 to 1	95%	10	18%
121	23	21	2 to 1	90%	10	48%
131 - 134	48	20	3 to 1	95%	5	25%
141 - 145	97	94	2 to 1	93%	16	17%
151, 152, 154, 155	97	95	2 to 1	92%	12	13%
161 - 164	79	75	2 to 1	93%	6	8%
171 - 173	170	159	2 to 1	95%	22	14%
181 - 184	37	32	2 to 1	91%	1	3%
192	27	14	2 to 1	93%	3	21%
194, 196	65	18	4 to 1	94%	7	39%
195	33	14	3 to 1	86%	2	14%
201, 204	49	36	2 to 1	94%	7	19%
202, 205, 206	7	7	1 to 1	86%	0	0%
203	53	47	2 to 1	83%	4	9%
211, 212	2	2	1 to 1	100%	0	0%
221 - 223	80	51	2 to 1	98%	13	25%
231	75	37	3 to 1	95%	10	27%
241 - 245	21	17	2 to 1	100%	1	6%
251 - 253	2	2	1 to 1	100%	1	50%
261 - 268	26	9	3 to 1	100%	1	11%
271, 272	5	4	2 to 1	100%	1	25%
291	19	10	2 to 1	0%	2	20%
TOTALS	2,095	1,804	2 to 1	95%	240	13%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 8. 2004 RESIDENT ANTLERLESS MULE DEER ANY LEGAL WEAPON HUNT 1181

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
101, 102, 104	133	41	4 to 1	95%	21	51%
114, 115	71	21	4 to 1	90%	4	19%
144	74	40	2 to 1	95%	25	63%
192	18	7	3 to 1	100%	5	71%
194, 196	53	13	5 to 1	85%	9	69%
203	37	19	2 to 1	100%	6	32%
291	22	5	5 to 1	100%	2	40%
TOTALS	408	146	3 to 1	95%	72	49%

TABLE 9. 2004 NONRESIDENT PIW ANTLERED MULE DEER ANY LEGAL WEAPON HUNT 1200

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
STATEWIDE	1,749	3	583 to 1	100%	2	67%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 10. 2004 NONRESIDENT GUIDED ANTLERED MULE DEER ANY LEGAL WEAPON HUNT 1235

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
011- 013	10	4	3 to 1	100%	2	50%
014	28	1	28 to 1	100%	1	100%
015	163	1	163 to 1	100%	0	0%
021	9	1	9 to 1	100%	1	100%
022	1	1	1 to 1	100%	1	100%
031	6	3	2 to 1	100%	2	67%
032	14	3	5 to 1	100%	1	33%
033 Early	13	3	5 to 1	100%	2	67%
033 Late	406	3	136 to 1	100%	2	67%
034	3	3	1 to 1	100%	2	67%
035	4	2	2 to 1	100%	1	50%
041, 042	2	2	1 to 1	100%	0	0%
043 - 046	6	6	1 to 1	67%	3	50%
051	6	6	1 to 1	67%	4	67%
061,062,064,066-068	73	17	5 to 1	100%	14	82%
065	7	1	7 to 1	100%	0	0%
071 - 079	82	22	4 to 1	95%	13	59%
081	9	1	9 to 1	100%	1	100%
101 - 108, Early	105	69	2 to 1	99%	49	71%
101 - 108, Late	134	19	8 to 1	84%	11	58%
111 - 113 Early	23	20	2 to 1	95%	10	50%
111 - 113 Late	35	2	18 to 1	100%	2	100%
114, 115	19	6	4 to 1	100%	5	83%
121	3	3	1 to 1	100%	2	67%
131-134	8	6	2 to 1	100%	5	83%
141 - 145	35	23	2 to 1	96%	6	26%
151, 152, 154, 155	15	8	2 to 1	75%	2	25%
161 - 164	18	12	2 to 1	100%	2	17%
171 - 173	36	20	2 to 1	95%	11	55%
181 - 184	6	6	1 to 1	67%	2	33%
192	2	1	2 to 1	100%	1	100%
194, 196	14	2	7 to 1	100%	2	100%
195	2	1	2 to 1	0%	0	0%
201, 204	4	2	2 to 1	100%	2	100%
202, 205, 206	2	2	1 to 1	100%	2	100%
203	1	1	1 to 1	100%	0	0%
221 - 223	53	10	6 to 1	90%	8	80%
231	92	5	19 to 1	100%	3	60%
241 - 245	166	3	56 to 1	100%	2	67%
271, 272	5	1	5 to 1	100%	0	0%
291	1	1	1 to 1	100%	1	100%
TOTALS	1,621	303	6 to 1	94%	178	59%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

**TABLE 11. 2004 NONRESIDENT ANTLERED MULE DEER ANY LEGAL WEAPON HUNT
1331**

UNIT GROUP	1st Choice	Tags	Draw Odds*	%	# Succ. Hunters	% Hunter
	Apps.	Sold		Return**		Success***
011- 013	802	7	115 to 1	86%	3	43%
014	183	2	92 to 1	100%	1	50%
015	549	2	275 to 1	100%	1	50%
021	250	2	125 to 1	100%	0	0%
022	33	3	11 to 1	100%	1	33%
031	156	7	23 to 1	86%	3	43%
032	67	6	12 to 1	83%	1	17%
033 Early	225	6	38 to 1	100%	5	83%
033 Late	1,175	6	196 to 1	100%	6	100%
034	19	2	10 to 1	100%	1	50%
035	26	2	13 to 1	100%	0	0%
041, 042	38	3	13 to 1	100%	2	67%
043 - 046	32	7	5 to 1	86%	5	71%
051	284	32	9 to 1	100%	16	50%
061, 062, 064, 066 - 068	537	32	17 to 1	97%	23	72%
065	21	2	11 to 1	100%	1	50%
071 - 079	532	57	10 to 1	100%	40	70%
081	134	3	45 to 1	100%	2	67%
101 - 108, Early	593	153	4 to 1	93%	57	37%
101 - 108, Late	595	38	16 to 1	92%	32	84%
111 - 113 Early	284	57	5 to 1	98%	24	42%
111 - 113 Late	339	4	85 to 1	100%	3	75%
114, 115	107	18	6 to 1	100%	11	61%
121	51	13	4 to 1	100%	7	54%
131 - 134	75	10	8 to 1	90%	4	40%
141 - 145	249	32	8 to 1	94%	14	44%
151, 152, 154, 155	103	13	8 to 1	92%	8	62%
161 - 164	229	16	15 to 1	88%	6	38%
171 - 173	294	28	11 to 1	93%	12	43%
181 - 184	49	11	5 to 1	91%	4	36%
192	18	3	6 to 1	67%	1	33%
194, 196	257	3	86 to 1	100%	3	100%
195	32	3	11 to 1	100%	3	100%
201, 204	39	8	5 to 1	100%	5	63%
202, 205, 206	47	5	10 to 1	100%	3	60%
203	9	4	3 to 1	100%	3	75%
211, 212	24	5	5 to 1	100%	2	40%
221 - 223	182	16	12 to 1	100%	13	81%
231	264	7	38 to 1	100%	7	100%
241 - 245	1,070	5	214 to 1	100%	2	40%
251 - 253	15	3	5 to 1	100%	0	0%
261 - 268 Early	13	5	3 to 1	100%	1	20%
261 - 268 Late	14	2	7 to 1	50%	0	0%
271, 272	20	2	10 to 1	100%	1	50%
291	15	3	5 to 1	100%	3	100%
TOTALS	10,050	648	16 to 1	95%	340	52%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 12. 2004 NONRESIDENT ANTLERED MULE DEER MUZZLELOADER HUNT 1371

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
011 - 013	37	2	19 to 1	100%	1	50%
014	9	2	5 to 1	100%	1	50%
015	22	2	11 to 1	100%	0	0%
021	5	2	3 to 1	100%	0	0%
022	4	2	2 to 1	100%	2	100%
031	11	2	6 to 1	100%	1	50%
032	5	2	3 to 1	100%	1	50%
033	31	2	16 to 1	100%	1	50%
034	6	2	3 to 1	100%	0	0%
035	4	2	2 to 1	100%	0	0%
041, 042	2	2	1 to 1	50%	0	0%
043 - 046	4	2	2 to 1	100%	1	50%
051	10	4	3 to 1	100%	0	0%
061, 062, 064, 066 - 068	21	3	7 to 1	100%	1	33%
065	9	2	5 to 1	100%	2	0%
071 - 079	20	8	3 to 1	100%	3	38%
081	5	2	3 to 1	50%	0	0%
101 - 108	81	20	5 to 1	85%	9	45%
111 - 113	18	4	5 to 1	100%	3	75%
114, 115	353	6	59 to 1	100%	4	67%
121	6	2	3 to 1	100%	2	100%
131 - 134	7	2	4 to 1	100%	2	100%
141 - 145	6	2	3 to 1	100%	0	0%
151, 152, 154, 155	6	3	2 to 1	100%	0	0%
161 - 164	17	3	6 to 1	100%	0	0%
171 - 173	27	9	3 to 1	89%	2	22%
181 - 184	2	2	1 to 1	100%	1	50%
192	2	2	1 to 1	100%	2	100%
194, 196	3	2	2 to 1	100%	2	100%
195	2	2	1 to 1	100%	0	0%
201, 204	8	2	4 to 1	100%	2	100%
202, 205, 206	6	2	3 to 1	100%	0	0%
211, 212	2	2	1 to 1	100%	0	0%
221 - 223	12	2	6 to 1	100%	1	50%
231	39	2	20 to 1	100%	2	100%
241 - 245	24	2	12 to 1	100%	2	100%
251 - 253	3	2	2 to 1	100%	2	0%
261 - 268	2	2	1 to 1	100%	0	0%
271, 272	5	2	3 to 1	100%	0	0%
291	2	2	1 to 1	100%	1	50%
TOTALS	838	122	7 to 1	95%	51	42%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 13. 2004 NONRESIDENT ANTLERED MULE DEER ARCHERY HUNT 1341

UNIT GROUP	1st Choice Tags		Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
	Apps.	Sold				
011 - 013	17	3	6 to 1	100%	0	0%
014	17	2	9 to 1	100%	1	50%
015	5	2	3 to 1	100%	0	0%
021	6	2	3 to 1	100%	0	0%
022	2	2	1 to 1	100%	1	50%
031	6	2	3 to 1	50%	0	0%
032	3	2	2 to 1	100%	0	0%
033	51	2	26 to 1	100%	1	50%
034	2	2	1 to 1	100%	1	50%
035	2	2	1 to 1	100%	0	0%
041, 042	3	2	2 to 1	100%	0	0%
043 - 046	7	4	2 to 1	100%	1	25%
051	15	8	2 to 1	88%	0	0%
061, 062, 064, 066 - 068	36	8	5 to 1	100%	1	13%
065	5	2	3 to 1	100%	0	0%
071 - 079	15	6	3 to 1	67%	1	17%
081	2	2	1 to 1	100%	0	0%
101 - 108 Early	85	62	2 to 1	89%	8	13%
101 - 108 Late	38	9	5 to 1	100%	4	44%
111 - 113	35	5	7 to 1	60%	2	40%
114, 115	14	8	2 to 1	88%	4	50%
121	2	2	1 to 1	100%	0	0%
131 - 134	12	2	6 to 1	100%	0	0%
141 - 145	14	10	2 to 1	90%	1	10%
151, 152, 154, 155	20	11	2 to 1	100%	3	27%
161 - 164	11	8	2 to 1	88%	2	25%
171 - 173	39	18	3 to 1	94%	3	17%
181 - 184	3	4	1 to 1	75%	0	0%
192	2	2	1 to 1	100%	1	50%
194, 196	9	2	5 to 1	100%	0	0%
195	1	1	1 to 1	100%	1	100%
201, 204	15	4	4 to 1	100%	2	50%
202, 205, 206	3	2	2 to 1	100%	0	0%
203	3	4	1 to 1	75%	1	25%
211, 212	0	2	1 to 1	0%	0	0%
221 - 223	20	6	4 to 1	100%	1	17%
231	47	4	12 to 1	75%	1	25%
241 - 245	9	2	5 to 1	100%	0	0%
251 - 253	0	1	1 to 1	0%	0	0%
261 - 268	0	1	1 to 1	0%	0	0%
271, 272	1	1	1 to 1	100%	0	0%
291	1	1	1 to 1	100%	0	0%
TOTALS	578	225	3 to 1	89%	41	18%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 14. 2004 PRONGHORN HARVEST BY GENDER FROM ALL HUNTS

UNIT	Fawns	Does	Bucks	Bucks Only	All Pronghorn	
				Unit Group	Unit	Unit Group
				Total	Total	Total
011			40	40	40	40
012			60		60	
013			33		33	
014			44	137	44	137
015			66	66	66	66
021			5		5	
022			10	15	10	15
031		1	111	111	112	112
032			56		56	
034			40		40	
035			40	136	40	136
033			53	53	53	53
041		1	60		61	
042			29	89	29	90
051			46	46	46	46
061		3	16		19	
062		6	18		24	
064		3	10		13	
071		1	14		15	
073			13	71	13	84
065			15	15	15	15
066			10	10	10	10
067		4	28		32	
068		10	58	86	68	100
072			16		16	
074			10	26	10	26
075			12	12	12	12
076			10		10	
077			10		10	
079			7		7	
081			1	28	1	28
078			6		6	
105			8		8	
106			8		8	
107					0	
121			29	51	29	51
101			6		6	
102		3	5		8	
103			1		1	
104		1	29		30	
108			12	53	12	57

UNIT	Fawns	Does	Bucks	Bucks Only	All Pronghorn	
				Unit Group	Unit	Unit Group
				Total	Total	Total
111			28		28	
112			6		6	
113			9		9	
114		3	32	75	35	78
115		4	7		11	
231			6		6	
242				13	0	17
131			18		18	
145			10		10	
163			11		11	
164			7		7	
221				46	0	46
132			9		9	
133			2		2	
134					0	
245			2	13	2	13
141			5		5	
142			1		1	
143			4		4	
152			1		1	
154					0	
155			13	24	13	24
161			11		11	
162			3	14	3	14
171			5		5	
172			2		2	
173			2	9	2	9
181			3		3	
182					0	
183					0	
184			3	6	3	6
202			1		1	
204			3	4	3	4
205			12		12	
206			1	13	1	13
221			4		4	
222			1		1	
223			2		2	
241			2	9	2	9
251			12	12	12	12
TOTAL	0	40	1,283			1,323

TABLE 15. 2004 PRONGHORN HUNTER DAYS BY UNIT GROUP AND HUNT

UNIT GROUP	2000	2100	2115 & 2215	2151	2161	2181	2251	2261	TOTAL
011				116	45		10		171
012 - 014				440	151		19	10	620
015				220	86		9	7	322
021, 022			4	64	10		2		80
031			44	180	266		20	6	516
032, 034, 035			30	316	124		36	0	506
033				150	34		11	1	196
041, 042				400	50		9	6	465
051				111	52		3		166
061, 062, 064, 071, 073				138	65	27	5	3	238
065			1	23	31				55
066				36	9				45
067, 068				454	63	39	17	3	576
072, 074				72	13		5		90
075			1	37	14		2		54
076, 077, 079, 081				94	22		2		118
078, 105 - 107, 121				250	24		5		279
101 - 104, 108				125	101	40	6	3	275
111 - 114			3	166	37	31	10	1	248
115, 231, 242				57	6		1		64
131, 145, 163, 164, 221				138	94		11		243
132 - 134, 245				33	4		2		39
141 - 143, 152, 154, 155				42	34		2		78
161, 162			2	36	17		5		60
171 - 173				19	6				25
181 - 184				7	7				14
202, 204				25	4				29
205, 206				55	26		2		83
221 - 223, 241				26	19		2		47
251				22	6		3		31
STATEWIDE	8	19							27
TOTAL	8	19	85	3,852	1,420	137	199	40	5,760

TABLE 16. 2004 PRONGHORN HUNTS 2000, 2100, 2104, 2115, AND 2215

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
RESIDENT PIW PRONGHORN ANY LEGAL WEAPON HUNT 2000						
STATEWIDE	1,005	5	201 to 1	100%	5	100%
HERITAGE PRONGHORN ANY LEGAL WEAPON HUNT 2100						
STATEWIDE		2		100%	1	50%
RESIDENT ANTELOPE ANY LEGAL WEAPON EMERGENCY DEPREDATION HUNT 2104						
062, 067, 068		4		75%	3	75%
RESIDENT AND NONRESIDENT BUCK PRONGHORN LANDOWNER COMPENSATION HUNT 2115 AND 2215						
021, 022		1		100%	1	100%
031		17		88%	13	76%
032, 035		15		80%	12	80%
065		1		100%	1	100%
075		1		100%	1	100%
111		1		100%	1	100%
114, 115		1		100%	1	100%
161, 173		1		100%	1	100%
TOTALS		38		87%	31	82%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 17. 2004 RESIDENT BUCK PRONGHORN ANY LEGAL WEAPON HUNT 2151

UNIT GROUP	1st Choice	Tags	Draw Odds*	%	# Succ.	% Hunter
	Apps.	Sold		Return**	Hunters	Success***
011	313	43	8 to 1	100%	36	84%
012 - 014	1,388	166	9 to 1	97%	121	73%
015	473	80	6 to 1	99%	55	69%
021, 022	421	14	31 to 1	100%	10	71%
031	499	92	6 to 1	100%	80	87%
032, 034, 035	786	135	6 to 1	98%	113	84%
033 Early	533	25	22 to 1	100%	19	76%
033 Late	156	25	7 to 1	100%	24	96%
041, 042	717	88	9 to 1	99%	79	90%
051	209	47	5 to 1	98%	40	85%
061, 062, 064, 071, 073	533	78	7 to 1	97%	63	81%
065	80	15	6 to 1	100%	13	87%
066	61	16	4 to 1	94%	9	56%
067, 068	320	87	4 to 1	99%	74	85%
072, 074	93	30	4 to 1	97%	24	80%
075	71	13	6 to 1	100%	10	77%
076, 077, 079, 081	187	27	7 to 1	100%	24	89%
078, 105 - 107, 121	258	55	5 to 1	100%	45	82%
101 - 104, 108	196	58	4 to 1	91%	45	78%
111 - 114	917	82	12 to 1	96%	68	83%
115, 231, 242	205	24	9 to 1	96%	12	50%
131, 145, 163, 164, 221	238	52	5 to 1	98%	35	67%
132 - 134, 245	238	16	15 to 1	88%	11	69%
141 - 143, 152, 154, 155	123	25	5 to 1	100%	22	88%
161, 162	160	16	10 to 1	100%	11	69%
171 - 173	66	8	9 to 1	100%	8	100%
181 - 184	28	6	5 to 1	83%	5	83%
202, 204	55	9	7 to 1	100%	4	44%
205, 206	80	16	5 to 1	100%	11	69%
221 - 223, 241	146	14	11 to 1	86%	8	57%
251	130	12	11 to 1	100%	11	92%
TOTALS	9,680	1,374	8 to 1	98%	1,090	79%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 18. 2004 RESIDENT BUCK PRONGHORN ARCHERY HUNT 2161

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
011	21	8	3 to 1	100%	2	25%
012 - 014	101	38	3 to 1	100%	11	29%
015	49	24	3 to 1	100%	7	29%
021, 022	26	3	9 to 1	100%	2	67%
031	53	33	2 to 1	100%	14	42%
032, 034, 035	52	34	2 to 1	97%	6	18%
033	44	7	7 to 1	100%	3	43%
041, 042	54	13	5 to 1	100%	6	46%
051	19	12	2 to 1	100%	4	33%
061, 062, 064, 071, 073	19	11	2 to 1	91%	1	9%
065	7	6	2 to 1	100%	0	0%
066	7	5	2 to 1	100%	1	20%
067, 068	28	26	2 to 1	96%	3	12%
072, 074	6	3	2 to 1	100%	0	0%
075	5	3	2 to 1	100%	0	0%
076, 077, 079, 081	12	4	3 to 1	100%	3	75%
078, 105 - 107, 121	17	8	3 to 1	100%	3	38%
101 - 104, 108	33	29	2 to 1	100%	4	14%
111 - 114	51	10	6 to 1	90%	1	10%
115, 231, 242	11	4	3 to 1	100%	0	0%
131, 145, 163, 164, 221	24	19	2 to 1	95%	8	42%
132 - 134, 245	17	2	9 to 1	100%	1	50%
141 - 143, 152, 154, 155	12	9	2 to 1	78%	1	11%
161, 162	6	3	2 to 1	100%	1	33%
171 - 173	4	2	2 to 1	100%	1	50%
181 - 184	5	3	2 to 1	100%	1	33%
202, 204	4	1	4 to 1	100%	0	0%
205, 206	9	7	2 to 1	100%	1	14%
221 - 223, 241	11	4	3 to 1	100%	0	0%
251	14	2	7 to 1	100%	0	0%
TOTALS	721	333	3 to 1	98%	85	26%

TABLE 19. 2004 RESIDENT DOE PRONGHORN ANY LEGAL WEAPON HUNT 2181

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
061, 062, 064, 071, 073	159	20	8 to 1	100%	15	75%
067, 068	108	24	5 to 1	100%	16	67%
102, 104 Early	32	10	4 to 1	100%	4	40%
102, 104 Mid	22	5	5 to 1	80%	2	40%
102, 104 Late	13	5	3 to 1	60%	0	0%
114, 115	84	15	6 to 1	100%	7	47%
TOTALS	418	79	6 to 1	96%	44	56%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 20. 2004 NONRESIDENT BUCK PRONGHORN ANY LEGAL WEAPON HUNT 2251

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
011	120	2	60 to 1	100%	1	50%
012 – 014	1,021	9	114 to 1	100%	5	56%
015	125	4	32 to 1	100%	3	75%
021, 022	69	1	69 to 1	100%	1	100%
031	90	5	18 to 1	100%	4	80%
032, 034, 035	151	7	22 to 1	100%	5	71%
033 Early	598	2	299 to 1	100%	2	100%
033 Late	96	2	48 to 1	100%	2	100%
041, 042	149	5	30 to 1	100%	4	80%
051	27	2	14 to 1	100%	2	100%
061, 062, 064, 071, 073	78	4	20 to 1	100%	4	100%
067, 068	57	5	12 to 1	100%	5	100%
072, 074	14	2	7 to 1	100%	2	100%
075	5	1	5 to 1	100%	1	100%
076, 077, 079, 081	39	1	39 to 1	100%	1	100%
078, 105 - 107, 121	26	3	9 to 1	100%	3	100%
101 – 104, 108	32	3	11 to 1	100%	2	67%
111 – 114	85	4	22 to 1	100%	3	75%
115, 231, 242	26	1	26 to 1	100%	1	100%
131, 145, 163, 164, 221	26	3	9 to 2	100%	3	100%
132 - 134, 245	17	1	17 to 1	100%	1	100%
141 – 143, 152, 154, 155	8	1	8 to 1	100%	1	100%
161, 162	13	1	13 to 1	100%	1	100%
205, 206	13	1	13 to 1	100%	1	100%
221 – 223, 241	12	1	12 to 1	100%	1	100%
251	9	1	9 to 1	100%	1	100%
TOTALS	2,906	72	41 to 1	100%	60	83%

TABLE 21. 2004 NONRESIDENT BUCK PRONGHORN ARCHERY HUNT 2261

012 – 014	32	2	16 to 1	100%	0	0%
015	13	1	13 to 1	100%	0	0%
031	7	2	4 to 1	100%	0	0%
032, 034, 035	6	2	3 to 1	100%	0	0%
033	34	1	34 to 1	100%	1	100%
041, 042	43	1	43 to 1	100%	1	100%
061, 062, 064, 071, 073	2	1	2 to 1	100%	0	0%
067, 068	1	1	1 to 1	100%	0	0%
101 – 104, 108	4	2	2 to 1	100%	1	50%
111 – 114	12	1	12 to 1	100%	1	100%
TOTALS	154	14	11 to 1	100%	4	29%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 22. 2004 ELK HARVEST BY POINT CLASS AND UNIT FOR ALL HUNTS

Unit	Cows	Calves	Left number of Antler Points							Unit Bull Total	Unit Group Bull Total	% 6+ pts	TOTAL ELK
			1	2	3	4	5	6	7+				
061						1	1	6	1	9			
071			1			1	3	8	2	15	24	71%	24
062								2		2			
064								2		2			
066													
067													
068										0	4	100%	4
072	11		2	1	1	4	31	2		41	41	80%	52
075	24	2				3	5	3		11	11	73%	37
076	9	1			1	2	8	3		14			
077	43	3		1	2	4	12	6		25			
081	6	4				1	8	6		15	54	80%	120
078						1				1			
104						1	1			2			
105							1			1			
106													
107											4	50%	4
079								4		4	4	100%	4
101	4							2		2			
102	5									0			
103	2	1						2		2			
104	4	2			1			7		8	12	92%	30
104										0			
108													
121						1	3			4	4	75%	4
111	133	23	11	3	5	29	65	12		125			
112	3					1				1			
113	15	2			1	6	8	1		16			
114					1	3	2	1		7			
115					1	1	7			9			
221	11	1	2	1		1	7	22	5	38			
222	80	12	3	2	4	4	13	47	12	85	281	65%	561
131						3				3			
132							1			1	4	25%	4
162	17			1	1	9	19	3		33	33	67%	50
231	58	8		1		1	12	28	4	46			
241										0			
242										0	46	70%	112
262						1	1			2	2	50%	2
TOTAL	425	59	19	4	10	22	106	302	61	524		69%	1,008

TABLE 23. 2004 ELK HUNTER DAYS BY UNIT GROUP AND HUNT

Unit Group	4000& 4200	4111	4131 & 4231	4133 & 4233	4151 & 4102	4156 & 4256	4161 & 4261	4176	4181	4232	4251	TOTAL
061, 071					208	24	27				6	265
062, 064, 066 - 068					28	11	5					44
072		1			161	25	40	3	44		1	275
075		15	23		82	14	27	9	407			577
076, 077, 081		60			364	15	59	22	267		10	797
078, 104, 105 - 107					33	4	9					46
079					17							17
101 - 104					83				88			171
104, 105, 121					42	7						49
111 - 115, 221, 222		790	66	35	2,243	315	668	439	1,775	69	104	6,504
131, 132					61	10	43					114
161 - 164		12			233	7	50	18	86		44	450
231, 241, 242		239			311	95	129	147	1,319	15	11	2,266
262					0	7	4					11
STATEWIDE	39											39
TOTAL	39	1,117	89	35	3,866	534	1,061	638	3,986	84	176	11,625

TABLE 24. 2004 ELK HUNTS 4000, 4200, 4102, 4104, 4131, 4231, 4133, 4233, 4232

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
PIW RESIDENT ANTLERED ELK ANY LEGAL WEAPON HUNT 4000						
STATEWIDE	1,841	3	614 to 1	100%	2	67%
HERITAGE ELK ANY LEGAL WEAPON HUNT 4200						
STATEWIDE		2		100%	2	100%
RESIDENT ANTLERED ELK ANY LEGAL WEAPON DEPREDATION HUNT 4102						
101 - 104	365	15	25 to 1	100%	12	80%
ELK INCENTIVE ANY LEGAL WEAPON HUNT 4131 AND 4231						
061, 071		3		100%	3	100%
075		5		100%	4	80%
076, 077, 081		1		100%	0	0%
111-115, 221, 222		9		100%	6	67%
231		2		100%	1	50%
TOTALS		20		100%	14	70%
ELK INCENTIVE MUZZLELOADER HUNT 4133 AND 4233						
111-115, 221, 222		2		100%	1	50%
231		2		100%	0	0%
TOTALS		4		100%	1	25%
ELK INCENTIVE ARCHERY HUNT 4232						
111-115, 221, 222		7		100%	7	100%
231		2		100%	1	50%
TOTALS		9		100%	8	89%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 25. 2004 RESIDENT ANTLERED ELK ANY LEGAL WEAPON HUNT 4151

UNIT GROUP	1st Choice	Tags	Draw Odds*	%	# Succ.	% Hunter
	Apps.	Sold		Return**	Hunters	Success***
061, 071	486	34	15 to 1	100%	17	50%
062, 064, 066 - 068	230	4	58 to 1	100%	3	75%
072	303	35	9 to 1	100%	29	83%
075 Early	238	3	80 to 1	100%	2	67%
075 Late	95	8	12 to 1	100%	5	63%
076, 077, 081	1,833	62	30 to 1	98%	42	68%
078, 104, 105 - 107	67	4	17 to 1	100%	2	50%
079	308	3	103 to 1	100%	3	100%
104, 105, 121	136	6	23 to 1	100%	4	67%
111 - 115, 221, 222 Early	4,192	200	21 to 1	100%	126	63%
111 - 115, 221, 222 Late	1,107	145	8 to 1	97%	80	55%
131, 132	73	9	9 to 1	89%	3	33%
161 - 164 Early	1,258	9	140 to 1	100%	9	100%
161 - 164 Late	389	30	13 to 1	97%	20	67%
231, 241, 242	876	50	18 to 1	98%	31	62%
262	247	1	247 to 1	100%	0	0%
TOTALS	11,838	603	20 to 1	99%	376	62%

TABLE 26. 2004 RESIDENT ANTLERED ELK MUZZLELOADER HUNT 4156

061, 071	83	5	17 to 1	100%	3	60%
062, 064, 066 - 068	7	1	7 to 1	100%	0	0%
072	104	10	11 to 1	90%	9	90%
075	7	1	7 to 1	100%	0	0%
076, 077, 081	53	4	14 to 1	100%	3	75%
078, 104, 105 - 107	5	1	5 to 1	100%	1	100%
104, 108, 121	8	1	8 to 1	100%	0	0%
111-115, 221, 222	291	45	7 to 1	98%	22	49%
131, 132	5	2	3 to 1	100%	0	0%
161 - 164	38	1	38 to 1	100%	0	0%
231, 241, 242	102	12	9 to 1	100%	6	50%
262	21	1	21 to 1	100%	1	100%
TOTALS	724	84	9 to 1	98%	45	54%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 27. 2004 RESIDENT ANTLERED ELK ARCHERY HUNT 4161

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
061, 071	27	2	14 to 1	100%	0	0%
062, 064, 066 - 068	12	1	12 to 1	100%	1	100%
072	44	4	11 to 1	100%	2	50%
075	22	2	11 to 1	100%	0	0%
076, 077, 081	119	5	24 to 1	100%	5	100%
078, 104, 105 - 107	4	1	4 to 1	100%	1	100%
104, 108, 121	6	1	6 to 1	0%	0	0%
111 - 115, 221, 222	439	30	15 to 1	100%	22	73%
131	12	3	4 to 1	100%	1	33%
161 - 164	45	4	12 to 1	100%	3	75%
231	125	12	11 to 1	100%	3	25%
262	17	1	17 to 1	100%	1	100%
TOTALS	872	66	14 to 1	98%	39	59%

TABLE 28. 2004 NONRESIDENT ANTLERED ELK ANY LEGAL WEAPON HUNT 4251

061, 071	120	1	120 to 1	100%	1	100%
072	163	2	82 to 1	50%	1	50%
076, 077, 081	356	3	119 to 1	100%	3	100%
111 - 115, 221, 222 Early	1,791	10	180 to 1	90%	6	60%
111 - 115, 221, 222 Late	493	8	62 to 1	100%	4	50%
161 - 164 Early	1,003	1	1003 to 1	100%	0	0%
161 - 164 Late	88	2	44 to 1	100%	1	50%
231, 241, 242	391	3	131 to 1	100%	3	100%
TOTALS	4,405	30	147 to 1	93%	19	63%

TABLE 29. 2004 NONRESIDENT ANTLERED ELK ARCHERY HUNT 4256

111 - 115, 221, 222	150	1	150 to 1	100%	1	100%
---------------------	-----	---	----------	------	---	------

TABLE 30. 2004 NONRESIDENT ANTLERED ELK ARCHERY HUNT 4261

111 - 115, 221, 222	416	2	208 to 1	100%	2	100%
161 - 164	51	1	51 to 1	100%	0	0%
231	186	1	186 to 1	100%	1	100%
TOTALS	653	4	164 to 1	100%	3	75%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 31. 2004 RESIDENT ANTLERLESS ELK ANY LEGAL WEAPON HUNT 4181

072	87	15	6 to 1	93%	8	53%
075	192	72	3 to 1	100%	25	35%
076, 077, 081	462	80	6 to 1	98%	60	75%
101 - 104 Early	25	10	3 to 1	80%	5	50%
101 - 104 Mid	23	10	3 to 1	90%	7	70%
101 - 104 Late	26	10	3 to 1	90%	6	60%
111	1,238	200	7 to 1	97%	120	60%
112	27	10	3 to 1	90%	3	30%
113	43	33	2 to 1	100%	12	36%
161 - 164 Early	151	15	11 to 1	100%	8	53%
161 - 164 Late	143	15	10 to 1	100%	6	40%
221	84	13	7 to 1	92%	6	46%
222	427	158	3 to 1	98%	80	51%
231 Early	226	70	4 to 1	93%	21	30%
231 Mid	149	78	2 to 1	96%	16	21%
231 Late	127	72	2 to 1	97%	9	13%
TOTALS	3,430	861	4 to 1	97%	392	46%

TABLE 32. 2004 RESIDENT ANTLERLESS ELK MUZZLELOADER HUNT 4176

072	11	2	6 to 1	100%	2	100%
075	4	4	1 to 1	75%	0	0%
076, 077, 081	13	5	3 to 1	100%	1	20%
111, 221, 222	153	78	2 to 1	100%	30	38%
112	2	2	1 to 1	100%	0	0%
113	12	12	1 to 1	100%	3	25%
161 - 164	8	3	3 to 1	133%	3	100%
231	84	40	3 to 1	98%	16	40%
TOTALS	287	106	3 to 1	100%	55	52%

TABLE 33. 2004 RESIDENT ANTLERLESS ELK ARCHERY HUNT 4111

UNIT GROUP	1st Choice Apps.	Tags Sold	Draw Odds*	% Return**	# Succ. Hunters	% Hunter Success***
072	12	2	6 to 1	100%	1	50%
075	5	4	2 to 1	100%	1	25%
076, 077, 081	28	17	2 to 1	88%	5	29%
111, 221, 222 Early	197	63	4 to 1	95%	21	33%
111, 221, 222 Late	64	14	5 to 1	100%	3	21%
112	18	7	3 to 1	100%	0	0%
113	31	12	3 to 1	100%	2	17%
161 - 164	2	2	1 to 1	100%	0	0%
231	43	43	1 to 1	98%	4	9%
TOTALS	400	164	3 to 1	96%	37	23%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 34. 2004 DESERT BIGHORN SHEEP HUNTS 3000, 3100 AND 3200

UNIT GROUP	1st Choice Apps.	Tags	Draw Odds*	% Returns**	# Succ. Hunters	% Hunter Success***
RESIDENT PARTNERSHIP IN WILDLIFE (PIW) DESERT BIGHORN SHEEP HUNT 3000						
Statewide	1,305	3	435 to 1	100%	3	100%
HERITAGE DESERT BIGHORN SHEEP HUNT 3100 and 3200						
Statewide		2		100%	2	100%

TABLE 35. 2004 RESIDENT DESERT BIGHORN SHEEP HUNT 3151

044,182	310	4	78 to 1	100%	4	100%
133,245	32	1	32 to 1	100%	1	100%
134	332	6	56 to 1	100%	6	100%
161	693	7	99 to 1	100%	7	100%
163	81	3	27 to 1	100%	3	100%
173	64	3	22 to 1	100%	3	100%
181	131	2	66 to 1	100%	2	100%
183	197	5	40 to 1	100%	5	100%
184	301	5	61 to 1	100%	5	100%
202	37	2	19 to 1	100%	2	100%
205	339	7	49 to 1	100%	6	86%
206	39	2	20 to 1	100%	1	50%
211	100	6	17 to 1	100%	6	100%
212	37	3	13 to 1	100%	3	100%
221	23	1	23 to 1	100%	1	100%
223,241	81	3	27 to 1	100%	2	67%
243, 271	73	2	37 to 1	100%	1	50%
244	48	2	24 to 1	100%	2	100%
252	99	3	33 to 1	100%	3	100%
253	144	5	29 to 1	100%	5	100%
261	63	3	21 to 1	100%	2	67%
262	151	5	31 to 1	100%	5	100%
263	701	5	141 to 1	100%	5	100%
264,265	78	2	39 to 1	100%	1	50%
266	185	3	62 to 1	100%	3	100%
267	462	5	93 to 1	100%	4	80%
268	971	14	70 to 1	100%	12	86%
272	28	1	28 to 1	100%	0	0%
280	39	2	20 to 1	100%	2	100%
281	27	2	14 to 1	100%	1	50%
282	21	2	11 to 1	100%	2	100%
283,284	22	2	11 to 1	100%	2	100%
286	50	2	25 to 1	100%	2	100%
TOTAL	5,959	120	50 to 1	100%	109	91%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 36. 2004 NONRESIDENT DESERT BIGHORN SHEEP HUNT 3251

UNIT GROUP	1st Choice		Draw Odds*	% Returns**	# Succ. Hunters	% Hunter Success***
	Apps.	Tags				
044,182	228	1	228 to 1	100%	1	100%
134	191	1	191 to 1	100%	1	100%
161	1,578	1	1,578 to 1	100%	1	100%
183	164	1	164 to 1	100%	1	100%
205	183	1	183 to 1	100%	1	100%
263	1,273	1	1,273 to 1	100%	1	100%
266	85	1	85 to 1	100%	1	100%
267	166	1	166 to 1	100%	1	100%
268	764	3	255 to 1	100%	3	100%
283, 284	86	1	86 to 1	100%	1	100%
286	152	1	152 to 1	100%	1	100%
TOTAL	4,870	13	375 to 1	100%	13	100%

TABLE 37. 2004 CALIFORNIA BIGHORN SHEEP HUNTS 8000 AND 8200**RESIDENT PARTNERSHIP IN WILDLIFE (PIW) CALIFORNIA BIGHORN SHEEP HUNT 8000**

Statewide	1,163	1	1,163 to 1	100%	1	100%
-----------	-------	---	------------	------	---	------

NONRESIDENT HERITAGE CALIFORNIA BIGHORN SHEEP HUNT 8200

Statewide		1		100%	1	100%
-----------	--	---	--	------	---	------

TABLE 38. 2004 RESIDENT CALIFORNIA BIGHORN SHEEP HUNT 8151

011, 113	124	3	42 to 1	100%	3	100%
012	393	4	99 to 1	100%	4	100%
031	458	3	153 to 1	100%	3	100%
032 Early	976	3	326 to 1	100%	2	67%
032 Late	131	2	66 to 1	100%	2	100%
033	470	2	235 to 1	100%	2	100%
034	711	4	178 to 1	100%	4	100%
035	145	2	73 to 1	100%	1	50%
041	361	1	361 to 1	100%	1	100%
051 Early	422	1	422 to 1	100%	1	100%
051 Late	131	1	131 to 1	100%	1	100%
066, 068	238	3	80 to 1	100%	2	67%
TOTAL	4,560	29	158 to 1	100%	26	90%

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 39. 2004 NONRESIDENT CALIFORNIA BIGHORN SHEEP HUNT 8251

UNIT GROUP	1st Choice	Tags		%	# Succ.	% Hunter
	Apps.	Sold	Draw Odds*	Return**	Hunters	Success***
032	666	1	666 to 1	100%	1	100%
033	2,162	1	2,162 to 1	100%	1	100%
035	326	1	326 to 1	100%	1	100%
051	330	1	330 to 1	100%	1	100%
TOTAL	3,484	4	871 to 1	100%	4	100%

TABLE 40. 2004 RESIDENT ROCKY MOUNTAIN BIGHORN SHEEP HUNT 9151

074	788	1	788 to 1	100%	1	100%
101	1,917	3	639 to 1	100%	2	67%
102	986	2	493 to 1	100%	2	100%
TOTAL	3,691	6	616 to 1	100%	5	83%

TABLE 41. 2004 MOUNTAIN GOAT HUNTS 7000, 7151, AND 7251**RESIDENT PARTNERSHIP IN WILDLIFE (PIW) MOUNTAIN GOAT HUNT 7000**

Statewide	825	1	825 to 1	100%	1	100%
-----------	-----	---	----------	------	---	------

RESIDENT MOUNTAIN GOAT HUNT 7151

101	1,099	7	157 to 1	100%	6	86%
102	2,136	14	153 to 1	93%	10	71%
103	266	1	266 to 1	100%	1	100%
TOTAL	3,501	22	160 to 1	100%	17	77%

NONRESIDENT MOUNTAIN GOAT HUNT 7251

Statewide	1,824	1	1,824 to 1	100%	1	100%
-----------	-------	---	------------	------	---	------

*Draw Odds – Number of 1st choice applicants for every tag sold; a relative measure of odds.

**%Return – Percent of big game hunter return cards received.

***%Hunter Success – based on the final tag sales.

TABLE 42. 2004 DESERT BIGHORN SHEEP – HUNTER CHECKOUT SUMMARY

Unit	Last Name	First Name	Kill Location	Kill Date	# Days Hunted	Age	B&C Score*	Seal #
133	Roberts	Kevin	??	11/27/2004	5	6	148	323
134	Perchetti	Anthony	S. End of Black Beauty Mesa	12/7/2004	10	6	170 2/8	382
134	Bennett	Randy	Near Citadel Mtn.	11/17/2004	5	7	150 4/8	232
134	Stanton	Albert	Black Beauty	11/16/2004	5	5	148 6/8	231
134	Pintar	Michael	Citadel Mountain	11/22/2004	3	6	157	234
134	Betts	Derek	3 Miles NE Citadel Mtn. Along Rim	1/1/1900	1	4	136	025
134	Lund	Richard	Lunar Crater, Pancakes	12/2/2004	7	6	159 1/8	120
134 NR	Winjum	Jim	Black Beauty Mesa	12/7/2004	10	7	154 2/8	341
161	Bodyfelt	Cory	Below Jumpin Jack Mine	11/13/2004	1	5	144 2/8	371
161	Perchetti	Robert	S of Moore's Creek near Jumpin Jack Mine	11/14/2004	2	9	165 2/8	374
161	Bird	Michael	Anderson Creek	11/13/2004	1	9	165 6/8	377
161	Frehner	Duane	Northumberland	11/22/2004	5	8	159 1/8	379
161	Berry	William	North of Moore's Creek	12/4/2004	3	6	161 7/8	339
161	Parks Jr	Daniel	North UMBERLAND Canyon	12/1/2004	13	6	155 2/8	119
161	Cox	Mark	Slaughterhouse Canyon	11/14/2004	2	7	155 2/8	029
161NR	Footo	Bryan	N. pf Moore Creek	11/17/2004	5	6	157 1/8	113
163	Robbins	Glen	Hot Creek Canyon	11/13/2004	1	10	154 2/8	370
163	Volberding II	Louis	Warm Springs	11/20/2004	4	10	162 5/8	378
163	Smith	Jeff	North End of Box Canyon	12/4/2004	7	9	159 5/8	121
173	Schultz	Dean	Horse Canyon	12/12/2004	8	6	147 7/8	125
173	Hess	Rollie	SW Side of Seyler Peak	11/13/2004	1	5	138 4/8	020
173	Ewell	Ronald	E. Side of Seyler Peak near Boyd Canyon	11/14/2004	2	4	131 5/8	111
181	Wood	Kent	Bell Canyon	12/3/2004	3	5	149 5/8	044
181	Oar	Donald	Bell Canyon	12/7/2004	17	4	153 3/8	046
181 PIW	Benitz	Brian	West Side of Fairview Peak	11/13/2004	1	7	167 3/8	036
182	Rice	Tom	2 Miles North of Cottonwood Creek	11/13/2004	1	4	149 5/8	017
182	Alexander	Glenn	Mississippi Canyon	12/2/2004	10	4	124	145
182	Richards	Fritz	2.5 Miles N. of Cottonwood Canyon	11/14/2004	2	2	132 2/8	023
182	Mincolla	Joseph	North Cottonwood Canyon	11/20/2004	4	4	135 7/8	039

*Unofficial

TABLE 42. CONTINUED

Unit	Last Name	First Name	Kill Location	Kill Date	# Days Hunted	Age	B&C Score*	Seal #
182 NR	Ford	James	North Mississippi	11/14/2004	2	4	143 7/8	143
183	Hanks	Alvin	Horse Creek	11/17/2004	5	7	147 3/8	114
183	Moser	Valerie	2.5 Miles N. of Little Angel Guzzler	11/14/2004	2	6	157	141
183	Vannucci	Louie	Cow Canyon	11/19/2004	7	6	152 1/8	037
183	Jaquish	Joseph	Clan Alpine Range	11/13/2004	1	9	165 7/8	026
183	Perondi	Michael	Bench Creek Road	11/13/2004	1	5	147 2/8	018
183 NR	Guthrie	Richard	Bench Creek Spur	11/13/2004	1	6	148 1/8	105
184	Curtis	Don	North Fort Gate Hills	11/14/2004	2	7	156 4/8	112
184	Dean	Gary	Eastgate Hills	11/20/2004	5	5	149	117
184	Lemm	Josh	Eastgate Hills	11/14/2004	2	6	158 6/8	142
184	Fisher	Christopher	Cold Springs	11/13/2004	1	7	159 4/8	103
184	Naveran	James	Eastgate Foothills	11/26/2004	1	5	153 2/8	206
202	French	Edward	Near Copper Canyon - South	11/16/2004	4	3	125 4/8	028
202	Berge	Scott	Copper Canyon	11/16/2004	4	3	135 2/8	032
205	Fullmer	Patrick		UNSUC	14			
205	Akins	Gene	Pilot Mtn.	11/14/2004	2	6	158	104
205	Lavoie	Edrie	Volcano Peak	11/21/2004	2	6	156 4/8	118
205	Hornbarger	Cheryl	North of New York Canyon	12/5/2004	11	6	141 5/8	043
205	Welsh	Warren	New York Mine	11/13/2004	1	4	133 4/8	107
205	Asher	Ryan	Nevada Rand Mine Area	11/16/2004	4	8	151 2/8	033
205	Dreeszen	Douglas	Chukar Ridge	11/18/2004	6	10	148 2/8	115
205 NR	Stanley	Katharine	Mack Canyon	11/14/2004	2	5	142 4/8	027
206	Smith	Mark	Silver Dyke Canyon	11/16/2004	4	2	116 2/8	030
206	McFarren	Timothy		UNSUC	11			
211	Owens Jr	Edward	Coyote Springs	12/6/2004	12	6	148 5/8	381
211	Jenne	James	Volcanic Hills	11/14/2004	2	7	153	375
211	Byrd	Scott	Volcanic Hills	12/9/2004	18	6	143 1/8	124
211	Banks	Mark	Doyle Peak	11/17/2004	2	8	152	034
211	Haworth	Michael	1 Mile North Doyle Peak	11/12/2004	1	1	79 3/8	019
211	Martin	David	Castle Peak - At Base	11/13/2004	1	7	140 7/8	024
212	O'Donnell	Robert	SW Face of Lone Mountain	12/12/2004	9	4	118 2/8	382

*Unofficial

TABLE 42. CONTINUED

Unit	Last Name	First Name	Kill Location	Kill Date	# Days Hunted	Age	B&C Score*	Seal #
212	Whitbeck	Christopher	Paymasters	12/4/2004	11	3	119 2/8	380
212	Westby	Jesse	Barrow Springs	11/14/2004	2	5	143 3/8	372
221	Kindred	Bowen	N. Side Troughs Springs Canyon	11/18/2004	5	6	151 3/8	233
223, 241	Boylan	Edward		UNSUC	16			
241	Gloekner	Kylee	W. Face of Delamars	12/5/2004	7	6	157 6/8	385
241	Saunders	Lonnie	South Hiko Guzzler	11/20/2004	8	6	132	144
243	Jones	Stephen	North Tri-Canyon, Meadow Valley Mtns	11/14/2004	2	5	136 7/8	108
243, 271	McColl III	Jeff		UNSUC	12			
244	Leavitt	Tyson	Ridge Top Above Full Curl	12/6/2004	7	5	148 1/8	338
244	Hughes	Brandon	North Battle Ships	11/20/2004	3	5	143 2/8	315
252	Garrett	John	Vitovich Canyon	11/21/2004	4	5	166 2/8	318
252	Dalen	Eric	South of Vitovich Canyon	11/14/2004	2	6	161 2/8	373
252	Wilcox Jr	Gary	4th of July Canyon	11/15/2004	3	11	164 7/8	376
253	Rees	Merl	1/2 Mile South of Panama Mine	11/16/2004	4	4	159 2/8	312
253	Van Dyke	John	Chuckwalla, Bare Mtn.	11/13/2004	1	6	150	110
253	Zenz	John	SE End of Bare Mountain	11/21/2004	9	10	166 6/8	040
253	Lair	Richard	Razorback Ridge, Bare Mts.	11/13/2004	1	7	163 4/8	109
253	Lattin	Stephen	Bare Mountain	11/15/2004	3	7	174 6/8	204
261	Andreu Jr	German	1 1/4 Mile W-NW Inside Sight	12/3/2004	12	5	150 1/8	334
261	Chico	Wesley		UNSUC	11			
261	Hill	Daniel	Last Chance Mountain -Mid-South End	11/29/2004	12	9	159 2/8	041
261 PIW	Wagner	Rainer	NE Side of N. McCulloughs	12/1/2004	1	3	140	333
262	Healy	Mark	West of Cheyenne and 215	12/10/2004	23	5	150 3/8	340
262	Fairbairn	Andrew	N. End of LaMadre Ridge-West Face	11/30/2004	9	6	151	
262	Nelson	Larry	3 Miles West of Little Devil Peak	11/14/2004	2	8	148 6/8	304
262	Ferrer	Jesse	N. End of LaMadre Ridge	11/27/2004	8	6	168 3/8	326
262	Lee	Joseph	1 Mile East of Mountain Springs	11/14/2004	1	5	143 5/8	311
262 Heritage	Schauer	Ronald	SE of Little Devil Water Development	9/1/2004	1	10	164 5/8	302
263	McDaniel	Gary	1 mile west of Roy Water Development	11/23/2004	9	7	160 1/8	319
263	Hicks	Bruce	Cow Springs	11/13/2004	1	7	162 1/8	022

*Unofficial

TABLE 42. CONTINUED

Unit	Last Name	First Name	Kill Location	Kill Date	# Days Hunted	Age	B&C Score*	Seal #
263	Bland	Kenneth	West Side of McCullough Pass	11/14/2004	2	7	164 5/8	308
263	Fletcher	Dirk	N. McCullough Springs	12/11/2004	13	9	161 6/8	007
263	Reed	John	West Side of McCullough Pass	11/14/2004	2	7	168 2/8	306
263 Heritage	Jaksick	Todd	1 Mile West of Cow Spring	1/5/2005	87	6	157 7/8	346
263 PIW	Steward	Ricky	North of McCullough Pass	11/29/2004	9	7	156 5/8	207
263 NR	Brundige	Bert	Between S and W Pole Lines	11/17/2004	2	8	159 6/8	116
265	Halverson	Dean	Aztec Wash	11/13/2004	1	10	155 5/8	305
264	Zimmerman	Carolyn		UNSUC	9			
266	Haas	David	Boy Scout Canyon	11/24/2004	12	8	158 2/8	322
266	Knowles	Kevin	Boy Scout Canyon	11/13/2004	1	5	142 2/8	021
266	Bawcom	David	Flat Between S Eldorados and River	11/21/2004	5	9	164 4/8	205
266 NR	Bush Jr	James	1 Mile N of Burro Springs	11/13/2004	1	5	141 7/8	309
267	Connell	Francis	W. of Cleopatra Off of Boathouse Cove Road	12/4/2004	4	4	147 7/8	336
267	Piccinini	Ben	1 Mile North of Cathedral Peaks	11/13/2004	1	3	128 7/8	313
267	Busch	Barbara		UNSUC	5			
267	Fuss	Robert	Cathedral Peaks	11/20/2004	1	5	134 6/8	320
267	Jenkins	Gary	Boat House Cove Road	11/25/2004	8	2	116	042
267 NR	Fitzpatrick	David	Wash SW of Cottonwood Spring	11/30/2004	4	5	141 2/8	329
268	Shirley	Sean	North End East Longwell Ridge	11/25/2004	5	4	153 5/8	328
268	Davison	Rob	S. Side of Second Day Peak	11/27/2004	8	10	160 2/8	325
268	Gillard	Eugene	North End of West Longwell Ridge	11/20/2004	5	6	152 5/8	317
268	Wilson	David	Logan Wash, 3 Miles WSW of Logandale	11/15/2004	3	5	151 4/8	307
268	Leavitt	Rodney	4 Miles W. Rogers Spring	11/26/2004	2	8	146 6/8	324
268	Evans	Douglas	3 Miles ENE of Buffington Pockets	12/4/2004	6	6	158 7/8	335
268	Lanier	Richard	2 Miles SE of Buffington Pockets	11/20/2004	2	6	154 3/8	316
268	Persichino	Gary		UNSUC	5			
268	Bellander	Shawn	Monocline Canyon	11/14/2004	2	7	150 5/8	310
268	Nelson	Ronald		UNSUC	21			
268	Henderson	Diane	Top of Mtn. Across from Echo Bay	11/17/2004	5	7	163 7/8	035
268	Nannini	Anthony	Piute Point/Monocline Canyon	11/17/2004	5	8	163 7/8	031
268	Johnson	Tricia	1.5 Miles North of Echo Bay Hwy. Junction	11/19/2004	6	5	143 3/8	038

*Unofficial

TABLE 42. CONTINUED

Unit	Last Name	First Name	Kill Location	Kill Date	# Days Hunted	Age	B&C Score*	Seal #
268	Bottari	Pete	Rogers Springs	12/9/2004	8	5	133 3/8	209
268 NR	Lemay	Paul	N. of Valley of Fire Rd, 3 Miles W. of VFSP	12/11/2004	4	3	122 6/8	330
268 NR	Wade	TD	Plute Point	11/17/2004	5	8	159 4/8	314
268 NR	Marcinak	Gordon	Gale Hills	12/11/2004	5	7	149	331
272	Woolman	Craig		UNSUC	17			
280	Sanders	Tom	Near Guzzler # 6 - Spotted Range	12/23/2004	5	7	159 7/8	235
280	Meyer	Gregg	1.5 mi west of Spotted #2 Guzzler	12/26/2004	8	9	161 7/8	146
281	Hafen	Gary	3/4 Mile North of Pintwater Cave	12/31/2004	10	9	149 6/8	344
281	Cribbs	Odis		UNSUC	7			
282	Hafen Jr	Lloyd		1/2/2005	12	7	151 4/8	345
282	Jense	Justin	1 Canyon North Blacktop East Side	12/21/2004	4	5	151 4/8	343
284	Herndon III	James	1 Mile East of Sheep Pass	12/11/2004	11	8	157 2/8	342
283	Langhans Jr.	John	North of Sand Dunes	11/23/2004	3	5	157 2/8	321
284 NR	Misterly Jr.	Lewis	Black Hills - North End	11/29/2004	4	4	163 2/8	327
286	Kloos	John	3 Miles S. on Poleline Rd from US 93	12/6/2004	12	3	126 6/8	337
286	Hillenbrand	John	"Gunsight" Area - Juniper Peak Water Dev.	12/6/2004	7	7	169 4/8	045
286 NR	Walkley	Tom	Gunsight area	12/3/2004	3	6	170 2/8	208
138 TAGS					6.1	6.1	150 3/8	
					AVERAGES:			

*Unofficial

TABLE 43. 2004 CALIFORNIA BIGHORN SHEEP – HUNTER CHECKOUT SUMMARY

Unit	Last Name	First Name	Kill Location	Kill Date	# Days Hunted	Age	B&C Score*	Seal #
012	Schmutz	Ramon	Burro Springs	9/12/2004	9	9	152 5/8	014
012	Ford	Judy	High Rock Canyon	9/13/2004	3	6	148	303
012	Porter	Mike	North of Little High Rock Canyon	9/6/2004	3	6	153 5/8	011
012	Roberts	Grant	S. of Donnelly Peak	9/24/2004	14	8	156 4/8	014
013	Lavoie	Edrie	Slide Spring	9/5/2004	2	7	152 4/8	102
013	Rahbeck	Jeffrey	Big Hat Mountain	9/26/2004	7	5	128 6/8	016
013	Powning	Kyle	1 Canyon North of Little Hat Mountain	9/4/2004	1	6	153 2/8	008
031	Bellander	Terry	Thacker Drainage	9/4/2004	1	9	157	202
031	Congdon	Arthur	3 Miles SE of Sheep Creek Reservoir	9/5/2004	2	6	145 6/8	009
031	Henderson	Diane	Garden Creek	9/7/2004	4	10	152	135
031 PIW	Ellis III	Frank	Above Sheep Ranch Spring	9/7/2004	4	9	160 2/8	136
031 Heritage	Carlson	Andrew	Horse Creek	8/1/2004	1	8	163	001
032	Edwards	John	McGee Mountain	8/8/2004	2	6	152 1/8	002
032	Hlubucek	Mark		UNSUCC	18			
032	Pigman	Casten	McGee Mountain - South End	8/8/2004	2	7	149 1/8	003
032	Plimpton	Todd	Choke Cherry Spring	9/10/2004	4	8	164 5/8	137
032	Bader	Gary	Lost Springs	9/4/2004	1	10	153 4/8	012
032 NR	Martin	John	North End of Black Hills	9/4/2004	1	8	158 2/8	005
033	Zeller	Bruce	Big Mountain	9/7/2004	4	6	146	134
033	Lerg	Roy	West Side Badger	9/6/2004	3	7	160	013
033 NR	Rossi	Silvio	Devany	9/7/2004	4	9	152	101
034	Pressey	Lake	Black Mountain	9/28/2004	17	6	147 2/8	106
034	Chambers	Brooke	Clapper Creek	9/11/2004	3	8	156 2/8	015
034	Jacques	Boyce	West Side of Big Mountain	9/4/2004	1	11	166	006
034	Oar	Donald	Top Big Mountain	9/4/2004	1	6	157	007
035	Rose	Michael		UNSUCC	22			
035	Larson	John	East Side of King Lear	9/22/2004	7	7	140 1/8	138
035 NR	Baker	Leonard	Alaska Canyon - Jackson	9/23/2004	10	6	140 1/8	139

*Unofficial

TABLE 43. CONTINUED

Unit	Last Name	First Name	Kill Location	Kill Date	# Days Hunted	Age	B&C Score*	Seal #
041	Beronio	David	North Side of Cottonwood	9/6/2004	3	7	158 1/8	010
051	Wiley	Harold	Jakes Creek	8/22/2004	9	5	134	131
051	Scott	Joseph	SF Quinn - Santa Rosa	9/23/2004	7	7	159 4/8	140
051 NR	Ellis	Victor	South Fork Quinn	9/6/2004	3	7	158 6/8	132
066	Stewart	Fred		UNSUCC	18			
066	Westwood	Jeffrey	SF of Little Humboldt River - Rodear Flat	9/22/2004	9	8	153 7/8	203
066	Sweeney	Gary	Little Humboldt	9/4/2004	1	7	143 2/8	133
35 TAGS					AVERAGES:	5.7	152 2/8	

TABLE 44. 2004 ROCKY MOUNTAIN BIGHORN SHEEP – HUNTER CHECKOUT SUMMARY

Unit	Last Name	First Name	Kill Location	Kill Date	# Days Hunted	Age	B&C Score*	Seal #
074	Wright	Gary	Black Mountain	8/27/2004	3	4	146 6/8	201
101	Harris	Paul	Lizzy's Basin	8/23/2004	3	6	181 1/8	301
101	Lazzari	Jerry	Ackler Creek	8/21/2004	1	7	189 4/8	004
101	Sanders	Victoria		UNSUCC	9			
102	Trent	Corey	Seitz (North Wall Below Lake)	8/21/2004	1	11	185 7/8	214
102	Dowty	Bret	0840 AM	8/24/2004	2	12	181 2/8	215
6 TAGS					AVERAGES:	3.2	176 7/8	

*Unofficial

TABLE 45. 1992 - 2004 DESERT BIGHORN SHEEP HUNT STATS BY UNIT GROUP

Unit Group	# Tags Issued	Percent Success	Average Days Hunted	Average Age	Average B&C Score*	Maximum B&C Score*
132	9	67%	7.6	5.7	111	133 3/8
133, 245	15	60%	9.6	5.9	143 2/8	161
134	62	92%	5.1	6.0	153	170 6/8
161	69	84%	5.0	6.9	157 3/8	173
163	18	100%	4.9	6.8	155 1/8	166 2/8
173	30	90%	4.8	5.4	142 3/8	154
181	14	100%	4.1	6.1	156 2/8	179 2/8
044, 182	64	89%	7.0	5.2	143 4/8	162 5/8
183	42	90%	5.9	5.4	149 7/8	171 4/8
184	50	82%	6.5	5.2	149 1/8	166
202	23	74%	7.4	4.7	133 5/8	161 4/8
205	88	90%	5.6	5.8	144 3/8	166 3/8
206	28	89%	7.7	7.1	148 1/8	173 2/8
211	68	88%	5.1	5.4	136	157 3/8
212	19	79%	7.6	5.8	140 7/8	160 2/8
221	12	92%	8.1	4.8	142 3/8	161 7/8
223, 241	28	86%	8.5	6.0	146 7/8	170 4/8
243	6	33%	11.2	7.0	147 1/8	157 3/8
244	42	74%	9.6	6.3	151	179 4/8
252	50	84%	8.6	6.3	156 3/8	180 3/8
253	27	100%	3.1	6.6	160 1/8	174 6/8
261	38	87%	8.2	6.1	146 7/8	168 7/8
262	63	87%	7.7	6.5	152 6/8	168 3/8
263	59	93%	6.2	7.1	161 1/8	183 2/8
264, 265	36	67%	9.4	6.7	150 4/8	167 3/8
266	84	88%	7.1	5.6	143 1/8	170
267	130	95%	4.5	6.3	149 6/8	171 4/8
268	195	94%	5.5	7.1	153 6/8	174 2/8
271	80	76%	10.6	6.0	144 3/8	178 6/8
272	26	62%	10.1	5.1	141 4/8	164 7/8
280	2	100%	6.5	8.0	160 7/8	161 7/8
281	55	47%	8.4	7.0	154 3/8	177 3/8
282	29	55%	7.8	6.7	148 3/8	162 4/8
283, 284	47	57%	10.5	5.4	147 7/8	163 2/8
286	36	75%	9.6	5.6	150 5/8	170 2/8

*Unofficial

TABLE 46. 1992 - 2004 CALIFORNIA BIGHORN SHEEP HUNT STATS BY UNIT

Unit	# Tags Issued	Percent Success	Average Days Hunted	Average Age	Average B&C Score	Maximum B&C Score
012	22	95%	3.5	7.5	149 2/8	162 4/8
013	17	82%	5.3	7.8	151	164 7/8
014	28	79%	4.1	6.3	128 4/8	146 1/8
022	5	100%	8.8	5.6	141 5/8	147 1/8
031	23	91%	4.4	7.0	148 7/8	164 6/8
032	74	82%	6.5	7.0	147 1/8	164.625
033	28	93%	5.1	7.2	152 2/8	165 6/8
034	24	100%	3.7	7.8	158 3/8	167 2/8
035	66	68%	7.2	7.9	149 2/8	166 1/8
041	7	100%	4.6	8.3	163 6/8	184 7/8
051	88	91%	6.8	6.5	153 5/8	175 2/8
066	26	69%	7.6	5.7	132 1/8	153 7/8
068	10	90%	8.4	4.4	122	132 5/8

*Unofficial

TABLE 47. 1999 - 2004 MOUNTAIN GOAT HARVEST STATS BY UNIT AND YEAR

Unit	# of Goats	Age	AVERAGES		Hunter Days
			Left Horn	Right Horn	

2004 Mountain Goat Harvest Results by Unit

101	7	3.2	8.3	8.3	1.6
102	16	6.0	8.6	9.0	5.1
103	1	4.5	9.3	9.5	4.0

1999 - 2004 Mountain Goat Harvest Results by Unit

101	37	4.5	8.4	8.5	2.1
102	68	5.3	8.7	8.9	4.8
103	7	4.5	8.4	8.2	2.9

1999 - 2004 Mountain Goat Harvest Results by Year

Year	# of Goats	Age	AVERAGES		Hunter Days
			Left Horn	Right Horn	
1999	10	4.0	8.0	8.3	2.7
2000	16	5.5	8.9	8.6	4.2
2001	22	5.4	8.5	8.6	3.0
2002	18	5.1	8.4	8.4	3.0
2003	22	4.0	8.5	8.4	3.0
2004	24	4.5	8.7	8.9	3.6

TABLE 48. BIGHORN SHEEP CHECKOUT SUMMARY HISTORY, 1994 – 2004

DESERT BIGHORN					AVERAGES	
YEAR	Total Tags	% Hunter Success	# Days Hunted	Age	B&C Score*	Maximum B&C Score*
1994	127	71%	8.5	6.2	149 4/8	179 4/8
1995	126	73%	7.8	6.3	150 7/8	171 4/8
1996	127	82%	7.5	5.5	145 3/8	177 3/8
1997	113	75%	7.8	6.1	144 3/8	170 6/8
1998	116	83%	7.3	5.8	152 1/8	172
1999	127	92%	5.8	6.0	147 4/8	179 2/8
2000	132	86%	5.9	6.3	147 4/8	173 2/8
2001	143	87%	5.7	6.2	150 5/8	178 2/8
2002	140	80%	6.3	6.3	148 4/8	183 2/8
2003	133	90%	6.4	6.4	150 7/8	173
2004	138	92%	6.1	6.1	150 3/8	174 6/8

CALIFORNIA BIGHORN					AVERAGES	
YEAR	Total Tags	% Hunter Success	# Days Hunted	Age	B&C Score*	Maximum B&C Score*
1994	20	70%	5.5	7.1	149 7/8	157 1/8
1995	25	76%	7.2	7.5	146 6/8	165 1/8
1996	33	88%	6.1	7.6	151 4/8	164 6/8
1997	36	86%	6.6	6.9	142 4/8	166 1/8
1998	41	88%	6.6	6.8	150 2/8	170 2/8
1999	47	77%	6.8	6.2	144 6/8	175 2/8
2000	43	91%	5.5	6.9	145 5/8	167
2001	37	89%	5.0	7.4	148 5/8	167 2/8
2002	41	83%	5.8	6.4	146 3/8	166 5/8
2003	39	87%	6.1	6.8	148 6/8	184 7/8
2004	35	91%	5.7	7.3	152 2/8	165 7/8

ROCKY MOUNTAIN BIGHORN					AVERAGES	
YEAR	Total Tags	% Hunter Success	# Days Hunted	Age	B&C Score*	Maximum B&C Score*
1995	2	100%	10.5	10.0	174 1/8	183 2/8
1996	2	50%	10.0	10.0	165 6/8	165 6/8
1997	3	67%	7.3	8.5	164 6/8	169 1/8
1998	5	100%	1.4	7.6	169 6/8	176 2/8
1999	5	100%	6.4	7.4	159	176
2000	4	100%	4.3	7.5	164 2/8	173 3/8
2001	3	67%	5.7	6.0	174 2/8	178 1/8
2002	3	100%	3.0	6.7	167 6/8	183 1/8
2003	6	100%	5.3	6.5	170 4/8	183 4/8
2004	6	83%	3.2	8.0	176 7/8	189 4/8

*Unofficial

TABLE 49. FALL 2004 AND SPRING 2005 MULE DEER SURVEY COMPOSITION

UNIT GROUP	2004 FALL TOTAL	2004 BUCKS/ 100 DOES	2004 FAWNS/ 100 DOES	2004 FAWNS/ 100 Adults	2005 Spring ADULTS	2005 Spring FAWNS	2005 Spring TOTAL	2005 FAWNS/ 100 Adults	2004 Fawns/ 100 Adult
011-013	269	38	71	51	147	69	216	47	39
014	175	35	51	38	103	45	148	44	35
015	--	--	--	--	189	93	282	49	26
021	--	--	--	--	181	75	256	41	43
022	--	--	--	--	146	59	205	40	47
031	--	--	--	--	231	130	361	56	59
032	--	--	--	--	289	145	434	50	59
033	183	35	76	56	72	32	104	44	47
034	--	--	--	--	67	39	106	58	58
035	--	--	--	--	33	22	55	67	55
041-042	--	--	--	--	22	11	33	50	50
043-046	--	--	--	--	429	206	635	48	50
051	--	--	--	--	431	231	662	54	56
061-068	--	--	--	--	3,869	1,342	5,211	35	20
065	--	--	--	--	70	15	85	21	25
071-079	2958	27	56	44	344	137	481	40	44
081	328	32	68	51	--	--	--	--	--
101-108	6140	26	51	40	4,553	1,827	6,380	40	29
111-113	--	--	--	--	1,785	558	2,343	31	26
114-115	--	--	--	--	523	113	636	22	29
121	958	27	44	35	87	24	111	28	28
131-134	469	48	51	34	275	78	353	28	34
141-145	--	--	--	--	797	145	942	18	29
151-155	--	--	--	--	669	202	871	30	32
161-164	435	32	69	52	1,128	292	1,420	26	29
171-173	--	--	--	--	1,943	579	2,522	30	30
181-184	--	--	--	--	50	22	72	44	56
192	91	27	48	38	262	78	340	30	35
194, 196	421	20	73	61	429	200	629	47	45
195	11	13	25	22	--	--	--	--	--
201-206	417	17	46	40	1,613	545	2,158	34	46
203	83	28	52	41	--	--	--	--	--
211, 212	--	--	--	--	--	--	--	--	--
221-223	783	31	47	36	1,571	431	2,002	27	36
231	840	27	55	43	658	226	884	34	43
241-244	--	--	--	--	29	11	40	38	37
251-253	--	--	--	--	--	--	--	--	--
261-268	--	--	--	--	--	--	--	--	--
271, 272	--	--	--	--	--	--	--	--	--
291	--	--	--	--	--	--	--	--	--
TOTALS	14,561	28	53	42	22,995	7,982	30,977	35	
2003-2004	5,038	26	55	44	24,125	7,569	31,694	31	

Units with (--) were not surveyed and no value could be calculated.

TABLE 50. FALL 2004 PRONGHORN SURVEY COMPOSITION

UNIT GROUP					BUCKS/	FAWNS/	2003
	BUCKS	DOES	FAWNS	TOTAL	100 DOES	100 DOES	FAWNS/ 100 DOES
011	122	299	188	609	41	63	60
012 - 014	144	408	210	762	35	52	40
015	36	119	56	211	30	47	47
021 - 022	36	62	27	125	58	44	51
031	123	239	129	491	52	54	52
032, 034, 035	46	95	46	187	48	48	44
033	103	199	96	398	52	48	41
041, 042	88	280	94	462	31	34	47
051	57	124	56	237	46	45	47
061 - 064, 071, 073	193	424	268	885	46	63	60
065, 142, 144	17	45	18	80	38	40	--
066	--	--	--	--	--	--	--
067 - 068	76	197	80	353	39	41	31
072, 074, 075	57	188	118	363	30	63	43
076, 077, 079, 081	16	59	20	95	27	34	46
078, 105 - 107, 121	66	278	105	449	24	38	--
101 - 104, 108, 144	86	206	73	365	42	35	--
111 - 114	246	696	213	1,155	35	31	--
115, 231, 242	45	113	51	209	40	45	35
131, 145, 163, 164, 221	27	86	30	143	31	35	5
132 - 134, 245	18	30	6	54	60	20	--
141, 143, 152 - 155	64	127	39	230	50	31	30
161, 162	53	133	30	216	40	23	16
171 - 173	34	30	8	72	113	27	58
181 - 184	42	67	35	144	63	52	--
202, 204	31	65	39	135	48	60	--
203, 291	--	--	--	--	--	--	--
205, 206	--	--	--	--	--	--	--
221 - 223, 241	30	96	23	149	31	24	32
251	6	31	8	45	19	26	18
2004 TOTAL	1,862	4,696	2,066	8,624	40	44	
<i>2003 TOTAL</i>	<i>1,114</i>	<i>2,825</i>	<i>1,218</i>	<i>5,157</i>	<i>39</i>	<i>43</i>	

Units with (--) were not surveyed this year.

TABLE 51. EARLY FALL 2004 DESERT BIGHORN SHEEP SURVEY COMPOSITION

UNIT GROUP	RAMS	EWES	LAMBS	TOTAL	RAMS/ 100 EWES	LAMBS/ 100 EWES	2003
							LAMBS/ 100 EWES
044, 182	5	24	3	32	21	13	35
131	--	--	--	--	--	--	60
133, 245	11	24	15	50	46	63	64
134	--	--	--	--	--	--	25
161	72	73	22	167	99	30	44
163	7	24	4	35	29	17	--
173	--	--	--	--	--	--	40
181	24	41	18	83	59	44	--
183	13	10	5	28	130	50	36
184	27	50	34	111	54	68	--
202	3	10	5	18	30	50	--
205	56	79	42	177	71	53	--
206	14	17	9	40	82	53	--
211	47	67	48	162	70	72	--
212	--	--	--	--	--	--	77
221	11	17	2	30	65	12	18
223, 241	15	32	18	65	47	56	54
243	7	11	3	21	64	27	23
244	20	37	22	79	54	60	--
252	--	--	--	--	--	--	38
253 - Specters	29	52	3	84	56	6	3
253 - Bares	19	40	21	80	48	53	3
262	22	34	13	69	65	38	--
263	103	152	64	319	68	42	57
264, 265	--	--	--	--	--	--	82
266	20	53	23	96	38	43	17
River Mountains	68	72	39	179	94	54	30
267	16	54	10	80	30	19	--
268	66	93	65	224	71	70	64
271	29	71	41	141	41	58	61
272	14	29	5	48	48	17	--
280	11	21	11	43	52	52	8
281	13	12	4	29	108	33	68
282	4	16	4	24	25	25	30
283, 284	33	66	34	133	50	52	47
286	11	28	6	45	39	21	56
2004 TOTALS	790	1,309	593	2,692	60	45	
2003 TOTALS	661	1,193	495	2,349	55	42	

Units with (--) were not surveyed this year.

TABLE 52. LATE SUMMER 2004 - WINTER 2005 CALIFORNIA BIGHORN SHEEP SURVEY COMPOSITION

UNIT GROUP	RAMS	EWES	LAMBS	TOTAL	RAMS/ 100 EWES	LAMBS/ 100 EWES	2003-2004
							LAMBS/ 100 EWES
011, 013	15	21	14	50	71	67	69
012	44	75	32	151	59	43	60
014	11	0	0	11	--	--	23
022	2	12	2	16	17	17	13
031	24	44	21	89	55	48	75
032	20	34	31	85	59	91	40
033	20	25	9	54	80	36	40
034	12	16	16	44	75	100	65
035	6	19	16	41	32	84	50
041	5	8	7	20	63	88	57
051	15	54	27	96	28	50	57
066	--	--	--	--	--	--	22
068	--	--	--	--	--	--	74
2004 TOTALS	174	308	175	657	56	57	
<i>2003 TOTALS</i>	<i>182</i>	<i>350</i>	<i>170</i>	<i>702</i>	<i>52</i>	<i>49</i>	

Units with (--) were not surveyed this year.

TABLE 53. JULY OR DECEMBER 2004 ROCKY MOUNTAIN BIGHORN SHEEP SURVEY COMPOSITION

UNIT GROUP	RAMS	EWES	LAMBS	TOTAL	RAMS/ 100 EWES	LAMBS/ 100 EWES	2003
							LAMBS/ 100 EWES
074	9	18	15	42	50	83	30
079				--	--	--	--
101	27	52	44	123	52	85	76
102	28	55	22	105	51	40	41
2004 TOTALS	64	125	81	270	51	65	
<i>2003 TOTALS</i>	<i>55</i>	<i>87</i>	<i>45</i>	<i>187</i>	<i>63</i>	<i>52</i>	

Units with (--) were not surveyed this year.

TABLE 54. SUMMER 2004 MOUNTAIN GOAT SURVEY COMPOSITION

UNIT GROUP	ADULTS	KIDS	TOTAL	KIDS/	2003
				100 ADULTS	KIDS/ 100 ADULTS
101	55	15	70	27	41
102	101	36	137	36	42
103	8	1	9	13	23
2004 TOTALS	164	52	216	32	
<i>2003 TOTALS</i>	<i>139</i>	<i>54</i>	<i>193</i>	<i>39</i>	

TABLE 55. WINTER 2004 - 2005 ROCKY MOUNTAIN ELK SURVEY COMPOSITION

UNIT GROUP	BULLS	COWS	CALVES	TOTAL	BULLS/	CALVES/	2003-2004
					100 COWS	100 COWS	CALVES/ 100 COWS
061, 071	153	337	157	647	45	47	43
062, 064, 066 - 068	44	79	39	162	56	49	50
072, 074	94	343	183	620	27	53	37
075	23	68	38	129	34	56	30
076, 077, 081	253	452	246	951	56	54	30
078, 104, 105 - 107	15	100	24	139	15	24	12
079	20	26	18	64	77	69	33
104, 108, 121	4	30	6	40	13	20	41
111-115, 221, 222	428	1,280	516	2,224	33	40	37
131, 132	13	72	25	110	18	35	31
161 - 164	52	195	79	326	27	41	30
231, 241, 242	88	134	63	285	66	47	57
262*	6	36	13	55	17	36	8
2004-2005 TOTALS	1,193	3,152	1,407	5,752	38	45	
<i>2003-2004 TOTALS</i>	<i>908</i>	<i>2,628</i>	<i>970</i>	<i>4,506</i>	<i>35</i>	<i>37</i>	

*Survey conducted in September 2004

Units with (--) were not surveyed this year.

TABLE 56. 2005 MULE DEER POPULATION ESTIMATES

UNIT GROUP	2005 ESTIMATE*	2004 ESTIMATE*
011-013	2,200	1,900
014	900	850
015**	440	400
021**	330	300
022	600	600
031	1,600	1,600
032***	1,000	1,100
033	1,450	1,300
034	600	900
035	700	950
041, 042	800	900
043-046	2,500	2,400
051	3,000	3,200
061- 064, 066 - 068	8,400	8,100
065	550	500
071-079	13,600	11,600
081	1,000	950
101-108	22,900	21,000
111-113	4,700	6,000
114-115	2,100	2,500
121	2,100	2,200
131-134	3,000	2,900
141-145	6,300	7,000
151-155	3,700	3,700
161-164	3,500	3,500
171-176	5,000	4,900
181-184	1,300	1,300
192**	260	290
194, 196**	600	600
195	600	600
201, 202, 204, 205, 206**	1,800	1,500
203	750	750
211, 212	300	350
221-223	4,100	4,000
231	2,200	2,100
241-245	750	1,000
251-253	350	400

UNIT GROUP	2005 ESTIMATE*	<i>2004 ESTIMATE*</i>
261-268	350	400
271, 272	250	300
291	450	450
TOTAL	107,000	<i>105,000</i>
Percent Change	2%	

*Estimates - Values generated from computer models based on sampled herd composition and harvest data. The confidence limits around these estimates may be as high as + or - 20%

**Estimate based on apportionment of an interstate herd

TABLE 57. 2005 ROCKY MOUNTAIN ELK POPULATION ESTIMATES

UNIT GROUP	2005 ESTIMATE*	<i>2004 ESTIMATE*</i>
061, 071	700	<i>600</i>
062, 064, 066 - 068	160	<i>130</i>
072, 074	700	<i>600</i>
075	130	<i>130</i>
076, 077, 081	1,100	<i>900</i>
079	150	<i>100</i>
078, 104, 105 - 107	160	<i>160</i>
104, 108, 121	140	<i>120</i>
111-115, 221, 222	3500	<i>3500</i>
131, 132	190	<i>170</i>
161 - 164	450	<i>430</i>
231, 241, 242	460	<i>450</i>
262	120	<i>120</i>
TOTAL	8,000	<i>7,400</i>
Percent Change	8%	

*Estimates - Values generated from computer models based on sampled herd composition and harvest data. The confidence limits around these estimates may be as high as + or - 20%

TABLE 58. 2005 PRONGHORN POPULATION ESTIMATES

UNIT GROUP	2005 ESTIMATE*	<i>2004 ESTIMATE*</i>
011-015	3,900	3,700
021, 022	200	200
031	1,200	1,200
032, 034, 035	2,000	1,900
033**	1,100	950
041, 042	1,100	1,000
051	750	700
061, 062, 064, 071, 073	1,300	650
065, 142, 144	140	140
066	160	160
067, 068	700	700
072, 074, 075	850	750
076, 077, 079, 081	440	480
078, 105 - 107, 121	1,000	1,000
101 - 104, 108, 144	600	600
111 - 114	1,600	1,500
115, 231, 242	400	400
131, 145, 162, 164, 221	600	600
132 - 134, 245	290	280
141, 143, 151 - 155	420	320
161,162	230	240
171, 172	140	130
181	150	70
202, 204	140	110
203, 291	60	50
205, 206	200	200
221 - 223, 241	200	190
251	180	190
TOTAL	20,000	<i>18,500</i>
Percent Change	8%	

*Estimates - Values generated from computer models based on sampled herd composition and harvest data. The confidence limits around these estimates may be as high as + or - 20%.

**TABLE 59 - 2005 DESERT BIGHORN
POPULATION ESTIMATES**

UNIT GROUP	2005 ESTIMATE*	2004 ESTIMATE*
044, 182	180	180
132	20	20
134	230	240
161	240	250
163	80	90
173	150	160
181	90	70
183	170	160
184	160	150
202	50	70
204	30	20
205	250	250
206	80	90
211	260	240
212	150	150
221	50	50
223, 241	150	170
243, 271	220	180
244	120	90
133, 245	80	70
252	150	150
253	180	180
261	120	110
262	170	170
263	320	250
264, 265, 266	230	220
267, 268	700	650
River Mountains	200	150
272	70	70
280	70	60
281	150	150
282	70	70
283, 284	190	180
286	130	130
TOTAL	5,500	5,200
Percent Change	6%	

**TABLE 60 - 2005 CALIFORNIA BIGHORN
POPULATION ESTIMATES**

UNIT GROUP	2005 ESTIMATE*	2004 ESTIMATE*
012	160	170
011,013	100	90
014	60	40
022	40	40
031	160	160
032	150	160
033	170	170
034	160	170
035	160	160
041	40	40
051	160	190
066, 068	130	130
TOTAL	1,500	1,500
Percent Change	0%	

**TABLE 61 - 2005 ROCKY MOUNTAIN BIGHORN
POPULATION ESTIMATES**

UNIT GROUP	2005 ESTIMATE*	2004 ESTIMATE*
074	50	40
079	30	30
101	130	110
102	100	90
TOTAL	310	270
Percent Change	15%	

**TABLE 62 - 2005 MOUNTAIN GOAT
POPULATION ESTIMATES**

UNIT GROUP	2005 ESTIMATE*	2004 ESTIMATE*
101	100	100
102	270	240
103	30	30
TOTAL	400	370
Percent Change	8%	

*Estimates - Values generated from computer models based on sampled herd composition and harvest data. The confidence limits around these estimates may be as high as + or - 20%.

TABLE 63. BIG GAME POPULATION ESTIMATE HISTORY

YEAR	ROCKY MOUNTAIN						
	MULE DEER	ANTELOPE	DESERT BIGHORN	CALIFORNIA BIGHORN	MOUNTAIN BIGHORN	ELK	MOUNTAIN GOAT
1976	95,000						
1977	113,000						
1978	122,000						
1979	113,000						
1980	127,500		2,900				
1981	135,500	9,800	3,000				
1982	140,000	10,500	3,100				
1983	120,000	11,000	3,200				
1984	129,500	11,500	3,100				
1985	155,500	12,000	3,300				
1986	180,000	12,500	3,500				
1987	220,000	13,000	3,500				
1988	240,000	13,500	3,600				
1989	212,000	14,000	3,700				
1990	202,000	15,000	3,800	480	140	2,000	
1991	180,000	16,500	4,000	530	150	2,400	
1992	183,500	18,000	4,100	650	190	2,700	190
1993	148,500	16,000	4,800	700	210	2,900	200
1994	115,000	15,000	4,700	800	220	3,100	210
1995	118,000	15,500	4,500	900	230	3,500	220
1996	120,000	15,000	4,900	1,000	230	4,000	230
1997	125,000	14,500	5,000	1,100	240	4,600	170
1998	132,000	15,000	5,200	1,200	250	5,000	200
1999	134,000	14,500	5,300	1,300	250	5,500	240
2000	133,000	16,000	4,900	1,400	210	5,900	280
2001	129,000	17,000	4,900	1,400	190	6,400	320
2002	108,000	18,000	5,300	1,500	210	6,600	340
2003	109,000	18,000	5,000	1,500	240	7,200	350
2004	105,000	18,500	5,200	1,500	270	7,400	370
AVERAGE	143,000	14,500	4,200	1,100	220	4,600	255
2005	107,000	20,000	5,500	1,500	310	8,000	400
% DIFF	-25	38	31	36	41	74	57

TABLE 64. BIG GAME TAG SALES AND HARVEST HISTORY BY SPECIES

YEAR	DEER		ANTELOPE		ELK		DESERT BIGHORN		CAL. BIGHORN		R.M. BIGHORN		MTN. GOAT	
	TAGS	HARVEST	TAGS	HARVEST	TAGS	HARVEST	TAGS	HARVEST	TAGS	HARVEST	TAGS	HARVEST	TAGS	HARVEST
1976	20,068	5,891	495	253	10	5	72	54	--	--	--	--	--	--
1977	23,972	8,423	462	362	10	7	81	58	--	--	--	--	--	--
1978	24,845	10,169	591	329	20	19	81	55	--	--	--	--	5	3
1979	23,293	11,000	594	358	10	8	81	59	--	--	--	--	--	--
1980	23,713	10,452	685	436	12	11	86	66	--	--	--	--	--	--
1981	24,755	13,594	745	479	14	12	89	64	--	--	--	--	5	3
1982	23,053	11,954	811	517	15	13	89	57	--	--	--	--	--	--
1983	24,124	11,758	757	475	13	12	110	93	--	--	--	--	3	3
1984	25,118	11,794	718	444	49	46	119	85	3	3	--	--	--	--
1985	34,667	19,520	891	589	95	82	126	109	3	3	2	2	3	2
1986	42,933	21,845	976	658	103	89	130	100	3	3	3	2	2	2
1987	39,347	21,497	1,039	722	129	105	134	112	3	3	2	2	2	2
1988	51,011	26,784	1,342	949	182	91	136	114	4	3	2	2	2	1
1989	34,847	17,782	1,378	980	200	103	133	111	3	3	2	2	4	4
1990	31,346	16,715	1,475	1,115	243	141	134	91	3	3	2	2	4	4
1991	26,584	12,442	1,913	1,311	240	141	126	85	5	5	1	1	6	6
1992	28,138	14,273	1,925	1,416	210	164	113	92	10	10	--	--	6	5
1993	16,017	6,276	1,569	1,020	215	176	123	102	12	12	--	--	7	7
1994	17,460	7,315	1,299	979	240	157	125	87	20	14	--	--	10	10
1995	20,014	8,114	1,387	878	306	183	126	90	25	19	2	2	12	11
1996	24,717	11,070	1,211	820	510	292	126	94	32	28	2	1	9	8
1997	20,186	8,263	1,173	805	783	389	113	85	35	30	3	2	6	6
1998	24,077	9,672	1,283	871	1,119	468	113	93	41	33	5	5	12	12
1999	24,023	11,020	1,521	1,173	1,274	577	126	110	47	36	5	5	11	10
2000	26,420	12,499	1,615	1,191	1,621	804	132	113	43	39	4	4	18	16
2001	23,813	9,791	1,518	1,121	1,359	701	143	124	37	34	3	2	23	22
2002	17,484	6,899	1,682	1,166	1,836	887	140	112	41	34	3	3	23	18
2003	14,892	5,982	1,846	1,278	1,821	1,055	133	119	39	34	6	6	23	22
AVERAGE	26,104	12,243	1,175	811	451	241	116	91	20	17	3	3	9	8
2004	16,010	6,560	1,921	1,323	1,972	1,008	138	127	35	32	6	5	24	23
%DIFF	-39%	-46%	63%	63%	337%	319%	19%	40%	71%	83%	96%	100%	169%	186%

TABLE 65 - HUNT NUMBER DESCRIPTIONS

HUNT NUMBER	HUNT DESCRIPTION
1000	RESIDENT ANTLERED MULE DEER PARTNERSHIP IN WILDLIFE
1100	RESIDENT ANTLERED MULE DEER WILDLIFE HERITAGE HUNT
1101	RESIDENT ANTLERLESS MULE DEER ANY LEGAL WEAPON, SPECIAL REGULATIONS
1104	RESIDENT ANTLERLESS MULE DEER EMERGENCY DEPREDATION HUNT
1107	RESIDENT ANTLERED OR ANTLERLESS MULE DEER YOUTH HUNT
1115	RESIDENT MULE DEER LANDOWNER DAMAGE COMPENSATION
1331	RESIDENT ANTLERED MULE DEER ANY LEGAL WEAPON
1341	RESIDENT ANTLERED MULE DEER ARCHERY
1371	RESIDENT ANTLERED MULE DEER MUZZLELOADER
1181	RESIDENT ANTLERLESS MULE DEER ANY LEGAL WEAPON
1200	NONRESIDENT ANTLERED MULE DEER PARTNERSHIP IN WILDLIFE
1201	NONRESIDENT ANTLERED MULE DEER WILDLIFE HERITAGE HUNT
1215	NONRESIDENT MULE DEER LANDOWNER DAMAGE COMPENSATION
1331	NONRESIDENT ANTLERED MULE DEER ANY LEGAL WEAPON
1235	NONRESIDENT ANTLERED MULE DEER GUIDED ANY LEGAL WEAPON
1341	NONRESIDENT ANTLERED MULE DEER ARCHERY
1371	NONRESIDENT ANTLERED MULE DEER MUZZLELOADER
2000	RESIDENT ANTELOPE PARTNERSHIP IN WILDLIFE
2100	RESIDENT ANTELOPE WILDLIFE HERITAGE HUNT
2101	RESIDENT ANTELOPE DEPREDATION HORNS SHORTER THAN EARS
2115	RESIDENT ANTELOPE LANDOWNER DAMAGE COMPENSATION
2151	RESIDENT ANTELOPE HORNS LONGER THAN EARS ANY LEGAL WEAPON
2161	RESIDENT ANTELOPE HORNS LONGER THAN EARS ARCHERY
2181	RESIDENT ANTELOPE HORNS SHORTER THAN EARS ANY LEGAL WEAPON
2200	NONRESIDENT ANTELOPE WILDLIFE HERITAGE HUNT
2215	NONRESIDENT ANTELOPE LANDOWNER DAMAGE COMPENSATION
2251	NONRESIDENT ANTELOPE HORNS LONGER THAN EARS ANY LEGAL WEAPON
2261	NONRESIDENT ANTELOPE HORNS LONGER THAN EARS ARCHERY
3000	RESIDENT NELSON (DESERT) BIGHORN SHEEP PARTNERSHIP IN WILDLIFE
3100	RESIDENT NELSON (DESERT) BIGHORN SHEEP WILDLIFE HERITAGE HUNT
3151	RESIDENT NELSON (DESERT) BIGHORN SHEEP RAM ANY LEGAL WEAPON
3200	NONRESIDENT NELSON (DESERT) BIGHORN SHEEP WILDLIFE HERITAGE HUNT
3251	NONRESIDENT NELSON (DESERT) BIGHORN SHEEP RAM ANY LEGAL WEAPON
4000	RESIDENT ANTLERED ELK PARTNERSHIP IN WILDLIFE
4100	RESIDENT ELK WILDLIFE HERITAGE HUNT
4102	RESIDENT ANTLERED ELK DEPREDATION
4104	RESIDENT ANTLERLESS ELK EMERGENCY DEPREDATION
4111	RESIDENT ANTLERLESS ELK ARCHERY
4131	RESIDENT ANTLERED OR ANTLERLESS ELK INCENTIVE ANY LEGAL WEAPON
4132	RESIDENT ANTLERED OR ANTLERLESS ELK INCENTIVE ARCHERY
4133	RESIDENT ANTLERED OR ANTLERLESS ELK INCENTIVE MUZZLELOADER
4151	RESIDENT ANTLERED ELK ANY LEGAL WEAPON
4156	RESIDENT ANTLERED ELK MUZZLELOADER
4161	RESIDENT ANTLERED ELK ARCHERY
4176	RESIDENT ANTLERLESS ELK MUZZLELOADER
4181	RESIDENT ANTLERLESS ELK ANY LEGAL WEAPON
4200	NONRESIDENT ANTLERED ELK WILDLIFE HERITAGE HUNT
4231	NONRESIDENT ANTLERED OR ANTLERLESS ELK INCENTIVE ANY LEGAL WEAPON

HUNT NUMBER	HUNT DESCRIPTION
4232	NONRESIDENT ANTLERED OR ANTLERLESS ELK INCENTIVE ARCHERY
4233	NONRESIDENT ANTLERED OR ANTLERLESS ELK INCENTIVE MUZZLELOADER
4251	NONRESIDENT ELK BULL ANY LEGAL WEAPON
5132	RESIDENT MOUNTAIN LION EITHER SEX
4261	NONRESIDENT ANTLERED ELK ARCHERY
5232	NONRESIDENT MOUNTAIN LION EITHER SEX
7000	RESIDENT MOUNTAIN GOAT PARTNERSHIP IN WILDLIFE
7151	RESIDENT MOUNTAIN GOAT ANY LEGAL WEAPON
7251	NONRESIDENT MOUNTAIN GOAT ANY LEGAL WEAPON
8000	RESIDENT CALIFORNIA BIGHORN SHEEP PARTNERSHIP IN WILDLIFE
8100	RESIDENT CALIFORNIA BIGHORN SHEEP WILDLIFE HERITAGE HUNT
8151	RESIDENT CALIFORNIA BIGHORN SHEEP RAM ANY LEGAL WEAPON
8200	NONRESIDENT CALIFORNIA BIGHORN SHEEP WILDLIFE HERITAGE HUNT
8251	NONRESIDENT CALIFORNIA BIGHORN RAM ANY LEGAL WEAPON
9151	RESIDENT ROCKY MT. BIGHORN SHEEP RAM ANY LEGAL WEAPON

TABLE 66. MARCH 2004 – FEBRUARY 2005 STATEWIDE MOUNTAIN LION HARVEST BY SEX AND MANAGEMENT AREA

Management Areas	Sport Hunter Harvest			Depredation Take			Management Area Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	3	3	6	2	2	4	5	5	10
2	0	0	0	2	1	3	2	1	3
3	2	0	2	1	0	1	3	0	3
4	2	0	2	0	0	0	2	0	2
5	5	7	12	0	0	0	5	7	12
6	5	1	6	2	0	2	7	1	8
7/8	8	6	14	0	0	0	8	6	14
10	7	7	14	2	2	4	9	9	18
11	10	3	13	1	3	4	11	6	17
12	1	1	2	0	0	0	1	1	2
13	1	1	2	0	0	0	1	1	2
14	3	2	5	0	0	0	3	2	5
15	2	1	3	0	0	0	2	1	3
16	0	0	0	0	0	0	0	0	0
17	1	2	3	0	0	0	1	2	3
18	1	0	1	0	0	0	1	0	1
19	5	1	6	0	0	0	5	1	6
20	3	0	3	3	1	4	6	1	7
21	0	0	0	0	0	0	0	0	0
22	2	3	5	0	0	0	2	3	5
23	0	0	0	0	0	0	0	0	0
24	1	1	2	0	0	0	1	1	2
25	0	0	0	0	0	0	0	0	0
26	2	1	3	0	0	0	2	1	3
27	0	0	0	0	0	0	0	0	0
29	1	0	1	0	0	0	1	0	1
Totals	65	40	105	13	9	22	78	49	127

TABLE 67. 2004 – 2005 MOUNTAIN LION BY HARVEST AND MORTALITY TYPE

Region	Sport Hunters	Guided Sport Hunters	Trapped	Illegal Harvest	Human Conflict, Depredation	Other Natural Mortality, Road Kill Etc.	Total
Region - East	34	25	2	3	10	2	76
Region - South	6	7	0	0	0	1	14
Region - West	18	15	2	0	12	0	47
Totals	58	47	4	3	22	3	137

TABLE 68. MOUNTAIN LION TAG SALES, SPORT HUNTER HARVEST, AND HUNTER SUCCESS BY CLASS OF HUNTER HISTORY

Year	TAG SALES*			HARVEST			HUNTER SUCCESS		
	Resident	Nonresident	Total	Resident	Nonresident	Total	Resident	Nonresident	Total
1972-1973	289	74	363	40	36	76	14%	49%	21%
1973-1974	314	114	428	52	39	91	17%	34%	21%
1974-1975	281	46	327	57	30	87	20%	65%	27%
1975-1976	221	40	261	37	17	54	17%	43%	21%
1976-1977	98	8	106	9	2	11	9%	25%	10%
1977-1978	129	16	145	15	6	21	12%	38%	14%
1978-1979	146	38	184	18	8	26	12%	21%	14%
1979-1980	235	46	281	30	17	47	13%	37%	17%
1980-1981	313	61	374	24	14	38	8%	23%	10%
1981-1982	527	62	589	36	24	60	7%	39%	10%
1982-1983	519	61	580	41	20	61	8%	33%	11%
1983-1984	329	50	379	57	21	78	17%	42%	21%
1984-1985	352	107	459	60	46	106	17%	43%	23%
1985-1986	394	96	490	54	29	83	14%	30%	17%
1986-1987	345	114	459	51	36	87	15%	32%	19%
1987-1988	416	91	507	41	37	78	10%	41%	15%
1988-1989	383	124	507	65	53	118	17%	43%	23%
1989-1990	439	184	623	75	77	152	17%	42%	24%
1990-1991	318	112	430	55	33	88	17%	29%	20%
1991-1992	507	112	619	78	47	125	15%	42%	20%
1992-1993	348	149	497	75	75	150	22%	50%	30%
1993-1994	405	139	544	99	74	173	24%	53%	32%
1994-1995	403	151	554	89	72	161	22%	48%	29%
1995-1996	432	186	618	73	61	134	17%	33%	22%
1996-1997	480	137	617	80	63	143	17%	46%	23%
1997-1998	870	137	1007	122	88	210	14%	64%	21%
1998-1999	643	124	767	73	67	140	11%	54%	18%
1999-2000	680	109	789	70	56	126	10%	51%	16%
2000-2001	883	169	1052	108	89	197	12%	53%	19%
2001-2002	838	98	936	104	63	167	12%	64%	18%
2002-2003	1060	131	1191	89	39	128	8%	30%	11%
2003-2004	1133	221	1354	119	73	192	11%	33%	14%
2004-2005	1186	206	1392	62	43	105	5%	21%	8%
Total	15,916	3,513	19,429	2,058	1,455	3,513	13%	41%	18%
Average	482	106	589	62	44	106			

TABLE 69. MOUNTAIN LION DEPREDATION HARVEST (USDA–WILDLIFE SERVICES)

Year	Males	Females	Unknown	Total
1968-1969	28	19	14	61
1969-1970	11	9	26	46
1970-1971	8	10	2	20
1971-1972	8	5	1	14
1972-1973	4	7	0	11
1973-1972	8	4	0	12
1974-1975	10	10	0	20
1975-1976	14	5	0	19
1976-1977	10	7	1	18
1977-1978	17	7	0	24
1978-1979	16	8	0	24
1979-1980	12	11	0	23
1980-1981	19	3	0	22
1981-1982	20	17	0	37
1982-1983	11	10	0	21
1983-1984	13	12	0	25
1984-1985	12	16	0	28
1985-1986	16	9	0	25
1986-1987	22	15	0	37
1987-1988	21	20	0	41
1988-1989	26	23	0	49
1989-1990	23	24	0	47
1990-1991	37	20	0	57
1991-1992	27	22	0	49
1992-1993	32	17	0	49
1993-1994	21	15	0	36
1994-1995	16	8	0	24
1995-1996	13	10	0	23
1996-1997	11	9	0	20
1997-1998	12	10	0	22
1998-1999	8	3	0	11
1999-2000	8	8	0	16
2000-2001	5	10	0	15
2001-2001	8	11	0	19
2002-2003	7	6	0	13
2003-2004	16	12	0	28
2004-2005	9	7	0	16
Totals	559	419	44	1022
Average	15	11	1	28

NEVADA HUNT UNIT REFERENCE MAP

